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BEFORE THE ARIZONA CORPORATION COMMISSION

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AZ CORP COMMISSION
DOCKET CONTROL


IN THE MATTER OF THE APPLICATION OF
OF VAIL WATER COMPANY FOR A
DETERMINATION OF THE FAIR VALUE OF
ITS UTILITY PLANT AND PROPERTY AND
FOR AN INCREASE IN ITS RATES AND
CHARGES BASED THEREON.

DOCKET NO. W-01651B-12-0339

**STAFF'S NOTICE OF FILING DIRECT
TESTIMONY**

Staff of the Arizona Corporation Commission ("Staff") hereby files the Direct
Testimony of Jeffrey M. Michlik, John A. Cassidy and Marlin Scott Jr., in the above
docket.

RESPECTFULLY SUBMITTED this 25th day of February 2013.



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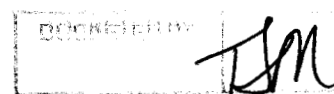
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25th day of February 2013 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Arizona Corporation Commission

DOCKETED

FEB 25 2013



BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP
Chairman
GARY PIERCE
Commissioner
BRENDA BURNS
Commissioner
BOB BURNS
Commissioner
SUSAN BITTER SMITH
Commissioner

IN THE MATTER OF THE APPLICATION OF) DOCKET NO.W-01651B-12-0339
VAIL WATER COMPANY FOR A)
DETERMINATION OF THE FAIR VALUE OF ITS)
UTILITY PLANT AND PROPERTY AND FOR AN)
INCREASE IN ITS RATES AND CHARGES)
BASED THEREON)
_____)

DIRECT
TESTIMONY
OF
JEFFREY M. MICHLIK
PUBLIC UTILITIES ANALYST V
UTILITIES DIVISION
ARIZONA CORPORATION COMMISSION

FEBRUARY 25, 2013

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VAIL WATER COMPANY

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**EXECUTIVE SUMMARY
VAIL WATER COMPANY
DOCKET NO. W-01651B-12-0339**

Vail Water Company ("Company") is a certificated Arizona public service corporation that provided water services during 2011 in Pima County, Arizona. The average number of customers served per the Company during the test year was approximately 3,900.

On July 27, 2012, the Company filed with the Arizona Corporation Commission ("Commission") an application for a permanent rate increase with a test year ending December 31, 2011. The application was found sufficient on August 27, 2012.

Rate Application:

The Company-proposed rates, as filed, produce total operating revenue of \$2,378,860, an increase of \$44,113, or 1.89 percent, over test year revenue of \$2,334,747 to provide a \$344,528 operating income and a 10.40 percent rate of return on its proposed \$3,312,774 fair value rate base ("FVRB") which is its original cost rate base ("OCRB").

The Utilities Division ("Staff") recommends rates that produce total operating revenue of \$2,191,924, a decrease of \$142,823, or 6.12 percent, from the Staff-adjusted test year revenue of \$2,334,747, to provide a \$201,902 operating income and a 9.10 percent return on the \$2,218,704 Staff-adjusted FVRB and OCRB.

The Company-proposed rates would increase the monthly bill for a typical 5/8 x 3/4-inch meter residential customer, with a median usage of 5,500 gallons, by \$.52 (1.48 percent), from \$35.18 to \$35.70. Under the Staff-recommended rate design for permanent rates, the monthly bill for a typical residential customer would decrease by \$3.73 (10.60 percent), from \$35.18 to \$31.45.

Staff Recommendations:

Staff recommends:

- Approval of Staff's rates and charges as shown in schedule JMM-17. In addition to collection of its regular rates and charges, the Company may collect from its customers a proportionate share of any privilege, sales or use tax, per Arizona Administrative Code ("A.A.C.") Rule 14-2-409(D) (5).
- Directing the Company to docket with the Commission a schedule of its approved rates and charges within 30 days after the date the Decision in this matter is issued.
- Directing the Company to file with Docket Control, as a compliance item in this docket and within 90 days of the effective date of a decision in this proceeding, at

least five Best Management Practices (“BMPs”), in the form of tariffs that substantially conform to the templates created by Staff, for Commission review and consideration. The templates created by Staff are available on the Commission’s website at <http://www.azcc.gov/Divisions/Utilities/forms.asp> (see Engineering Report).

- Authorizing the depreciation rates by individual National Association of Regulatory Utility Commissioners account, as presented in Table 1-1 of Engineering Report.
- Directing the Company to obtain competitive bids for its management services no less frequently than every three years, file the management services bid documentation with the Utilities Compliance Division and file a letter in Docket Control stating that the bid documentation was filed with the Utilities Division.
- Directing the Company to directly track salary costs from its affiliate, TEM Corp., to the maximum extent practical by use of timesheets in units no larger than hourly.
- Direct the Company to cooperate with Staff and provide information Staff may need in the Company’s affiliate general ledger and other accounting records.
- Authorizing the Company to use any funds that remain in the Central Arizona Project (“CAP”) account to fund the CAP Water line from Tucson Water to Vail Water and to treat those funds as contributions in aid of construction.
- Authorize a surcharge to be calculated at a later date, through the Company’s own initiative in the Docket for this case, to request recovery of new CAP costs as they become known and measurable.
- Direct that the Company’s CAP surcharges be reviewed in its next rate case for appropriate modification or discontinuation.

I. INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Jeffrey M. Michlik. I am a Public Utilities Analyst V employed by the Arizona Corporation Commission ("Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst V.

A. In my capacity as a Public Utilities Analyst V, I analyze and examine accounting, financial, statistical and other information and prepare reports based on my analyses that present Staff's recommendations to the Commission on utility revenue requirements, rate design and other matters. I also provide expert testimony on these same issues.

Q. Please describe your educational background and professional experience.

A. In 2000, I graduated from Idaho State University, receiving a Bachelor of Business Administration Degree in Accounting and Finance, and I am a Certified Public Accountant with the Arizona State Board of Accountancy. I have attended the National Association of Regulatory Utility Commissioners' ("NARUC") Utility Rate School, which presents general regulatory and business issues.

I joined the Commission as a Public Utilities Analyst in May of 2006. Prior to employment with the Commission, I worked four years for the Arizona Office of the Auditor General as a Staff Auditor, and one year in public accounting as a Senior Auditor.

Q. What is the scope of your testimony in this case?

A. I am presenting Staff's analysis and recommendations regarding Vail Water Company's ("Vail" or "Company") application for a permanent rate increase. I am presenting

1 testimony and schedules addressing rate base, operating revenues and expenses, revenue
2 requirement, and rate design. Mr. Marlin Scott Jr. is presenting Staff's engineering
3 analysis and related recommendations. Mr. John Cassidy is presenting cost of capital
4 testimony.

5
6 **Q. What is the basis of your testimony in this case?**

7 A. I performed a regulatory audit of the Company's application and records. The regulatory
8 audit consisted of examining and testing financial information, accounting records, and
9 other supporting documentation and verifying that the accounting principles applied were
10 in accordance with the Commission-adopted NARUC Uniform System of Accounts
11 ("USoA").

12
13 **Q. How is your testimony organized?**

14 A. My testimony is presented in ten sections. Section I is this introduction. Section II
15 provides a background of the Company. Section III is a summary of consumer service
16 issues. Section IV presents compliance status. Section V is a summary of the Company's
17 filing and Staff's rate base and operating income adjustments. Section VI presents Staff's
18 rate base recommendations. Section VII presents Staff's operating income
19 recommendations. Section VIII presents Staff's revenue requirement. Section IX presents
20 Staff's rate design. Section X presents the Company's Affiliated and Related Entities, and
21 Section XI presents Staff's Central Arizona Project recommendations.

22

II. BACKGROUND

Q. Please review the background of this application.

A. Vail Water Company is a certificated Arizona public service corporation that provided water services during 2011 in Pima County, Arizona. The average number of customers served per the Company during the test year was 3,900.

On July 27, 2012, the Company filed an application for a permanent rate increase, with a test year ending December 31, 2011.

III. CONSUMER SERVICES

Q. Please provide a brief history of customer complaints received by the Commission regarding the Company. Additionally, please discuss customer responses to the Company's proposed rate increase.

A. A review of the Commission's Consumer Services database for the Company from January 1, 2010, to January 30, 2013, revealed the following:

2012 – Zero complaints, zero opinions, and zero inquires.

2011 – Three complaints (one billing, one disc/term-non pay, and one other), zero opinions and zero inquiries.

2010 – One complaint (deposit refund), zero opinions and zero inquiries.

All complaints have been resolved and closed.

IV. COMPLIANCE

Q. Please provide a summary of the compliance status of the Company.

A. A check of the Commission's Compliance database indicates that there are currently no delinquencies for the Company.

V. SUMMARY OF FILING, RECOMMENDATIONS, AND ADJUSTMENTS

Q. Please summarize the Company's proposals in this filing.

A. The Company-proposed rates, as filed, produce total operating revenue of \$2,378,860, an increase of \$44,113, or 1.89, over test year revenue of \$2,334,747 to provide a \$344,528 operating income and a 10.40 percent rate of return on its proposed \$3,312,773 fair value rate base ("FVRB") which is its original cost rate base ("OCRB").

Q. Please summarize Staff's recommendations.

A. Staff recommends rates that produce total operating revenue of \$2,191,924, a decrease of \$142,823, or 6.12 percent, from the Staff-adjusted test year revenue of \$2,334,747, to provide a \$201,902 operating income and a 9.10 percent return on the \$2,218,704 Staff-adjusted FVRB and OCRB.

Q. What test year did the Company use in this filing?

A. The Company's rate filing is based on the twelve months ended December 31, 2011 ("test year").

Q. Please summarize the rate base adjustments addressed in your testimony.

A. My testimony addresses the following issues:

1 Retired Plant – This adjustment decreases plant-in-service by \$281,388 and accumulated
2 depreciation by \$281,388 to remove plant-in-service that should be retired.

3
4 Plant Retired to Wrong Account – This adjustment reclassifies plant balances to correct
5 errors in recording retirements. This adjustment neither increases or decreases plant-in-
6 service, but does decrease the associated accumulated depreciation by \$10,136.

7
8 Excess Capacity – This adjustment reduces plant-in-service by \$268,743 and accumulated
9 depreciation by \$268,743 to remove excess capacity.

10
11 Central Arizona Project (“CAP”) Long-Term Storage Credits – This adjustment creates a
12 Deferred Regulatory Liability in the amount of \$1,075,643 to recognize ratepayer monies
13 held by the Company.

14
15 **Q. Please summarize the operating revenue and expense adjustments addressed in your**
16 **testimony.**

17 A. My testimony addresses the following issues:

18
19 Central Arizona Project (“CAP”) Municipal and Industrial (“M&I”) Expenses – This
20 adjustment increases CAP M&I expenses by \$47,911 to take into account scheduled
21 increases in CAP M&I expenses.

22
23 Water Testing Expense – This adjustment increases water testing expense by \$9,761 to
24 reflect Staff’s recommended annual amount of \$13,667.

25

1 Miscellaneous Expense – This adjustment decreases miscellaneous expenses by \$1,311 to
2 remove costs that are not necessary to the provision of water services.

3
4 Depreciation Expense – This adjustment decreases depreciation expense by \$40,418 to
5 reflect application of Staff's recommended adjustments to plant-in-service discussed
6 above and Staff's recommended depreciation rates.

7
8 Property Tax Expense – This adjustment does not increase or decrease test year property
9 taxes, but reflects application of the modified version of the Arizona Department of
10 Revenue's ("ADOR") property tax methodology.

11
12 Income Tax Allowance Expense – This adjustment decreases test year income tax expense
13 by \$13,733 to reflect the Tax Allowance for income tax expense.

14
15 **VI. RATE BASE ADJUSTMENTS**

16 *Fair Value Rate Base*

17 **Q. Did the Company prepare a schedule showing the elements of Reconstruction Cost**
18 **New Rate Base?**

19 A. No, the Company did not. The Company's filing treats the OCRB the same as the FVRB.

20
21 *Rate Base Summary*

22 **Q. Please summarize Staff's adjustments to the Company's rate base shown in**
23 **Schedules JMM-3 and JMM-4.**

24 A. Staff's adjustments to the Company's rate base resulted in a net decrease of \$1,094,069
25 from \$3,312,773 to \$2,218,704. Staff's recommendations result from the rate base
26 adjustments described below.

Rate Base Adjustment No. 1 – Retired Plant

Q. Did Staff identify plant that should be retired?

A. Yes. Staff identified \$281,388 in plant that the Company should have retired, but had not retired. Please see the testimony of Staff Engineer Marlin Scott, Jr.

Q. What is Staff's recommendation?

A. Staff recommends decreasing plant in service by \$281,388 to remove all plant from rate base that should have been retired, and also remove the associated accumulated depreciation amount of \$288,388, as shown in Staff Schedule JMM-5.

Rate Base Adjustment No. 2 – Plant Retired to Wrong Account

Q. Did Staff identify plant that was retired to the wrong account?

A. Yes. Based on the Company's response to Staff data request 4-3, Staff identified \$27,480 in plant that was retired to the wrong account.

Q. What is Staff's recommendation?

A. Staff recommends reclassifying and increasing plant in the amount of \$1,838 in account 311 Electric Pumping Equipment, and in the amount of \$25,642 in account 330 Distribution Reservoirs and Standpipe, and reducing plant in the amount of \$27,480 in account 340, Office Furniture and Fixtures, along with decreasing the associated accumulated depreciation by \$10,136, as shown in Staff Schedule JMM-6.

Rate Base Adjustment No. 3 – Excess Capacity

Q. Did Staff identify plant-in-service with excess capacity?

A. Yes. Staff identified \$268,743 in excess capacity that should be removed from rate base. Please see the testimony of Staff Engineering Marlin Scott, Jr.

1 **Q. What is Staff's recommendation?**

2 A. Staff recommends decreasing plant in the amount of \$268,743 in account 307 Wells and
3 Springs, as shown in Staff Schedule JMM-7.
4

5 *Rate Base Adjustment No. 4 – Central Arizona Project ("CAP") Long-Term Storage Credits*
6 *("LTSC")*

7 **Q. Is the Company proposing to include Deferred CAP Charges of \$1,104,206 in rate**
8 **base?**

9 A. Yes.
10

11 **Q. Please provide a brief overview of the Company's CAP LTSC and their uses?**

12 A. Based on the Company's response to Staff data request 3-1, the Company has an annual
13 subcontract amount of 1,857 Acre Feet ("AF") of CAP rights. Currently Vail recharges its
14 entire annual allocation with Kai Farms which generates recharge credits. The Company,
15 as part of the Tucson Active Management Area, uses these credits to offset its annual
16 groundwater pumping, as required to achieve "Safe Yield." The Company has also sold a
17 limited amount of excess credits to del Lago Golf club during months when there is a
18 need. Storage credits purchased by del Lago Golf have ranged from 125 AF to 243 AF
19 annually and are sold on an average costs basis. Funds from these sales are deposited in
20 the segregated CAP account.
21

22 **Q. Why has the Company been accumulating theses CAP LTSC?**

23 A. According to the Company, prior to 2009 all CAP and associated recharge costs were
24 expensed in the year disbursed. As the remainder credits grew to an amount greater than

1 the amount of water recovered for a calendar year, the Company began to capitalize its
2 CAP charges and amortize its usage on an average cost basis.¹

3
4 Further, the Company plans to continue to use the LTSC until it can take direct delivery of
5 the CAP water, and it plans to keep an amount of credits in reserve for potential outages
6 on the canal.

7
8 **Q. Does Staff agree with the Company's plan for using the CAP LTSC?**

9 A. Staff agrees so long as the Company continues to deposit the proceeds of any sale of
10 excess credits into the segregated funds designated for CAP purposes.

11
12 **Q. Has the Company provided Staff with a CAP LTSC work sheet?**

13 A. Yes. The Company stated that this worksheet mirrors the worksheet required by the
14 Arizona Department of Water Resources ("ADWR"), but it provides greater detail.

15
16 **Q. Does Staff agree with the Company's calculation?**

17 A. Yes, for the most part. The Company provided Staff with a revised worksheet in response
18 to Staff data request 5-1. Staff did notice that the five-percent cut to the aquifer was not
19 included in the 2011 year calculation, and Staff has included a recalculated storage credit
20 figure. Please see Attachment A.

21
22 **Q. Has Staff made an adjustment to correct for the Company's omission of the five-**
23 **percent cut in the Deferred CAP asset?**

24 A. Yes. Please see schedule JMM-8. This results in a \$28,563 reduction to the Deferred
25 CAP asset charge.

¹ Company response to Staff data request JMM 5-1.

1 **Q. How is the CAP LTSC balance calculated on a yearly basis?**

2 A. As shown in the worksheet included in Attachment A, the Company starts with a
3 beginning balance which includes the AF, cost and per unit cost. The Company then adds
4 the CAP M&I charges for water entering the recharge facility for the year.² Next, other
5 costs for acquisitions or purchases of LTSC for the year are added.³ Then, the Company
6 subtracts the cost for the annual amount pumped from the ground and for any LTSC sold
7 to its affiliate, del Lago Golf, to compute an ending balance.

8
9 Since the volume of water being recharged into the facility is more than the quantity of
10 water the Company pumped from the ground, a net positive CAP LTSC is accumulated
11 for the year.

12
13 **Q. Is the Company proposing to include the Deferred CAP Charges balance in rate**
14 **base?**

15 A. Yes. The Company has included a Deferred CAP Charges balance of \$1,104,206 in its
16 rate base.

17
18 **Q. Did the Company's investors fund the Deferred CAP Charges?**

19 A. No. The Company has collected funds via a CAP Hook-up fee and a CAP Service Charge
20 (i.e., surcharge). While Decision No. 62450 refers to treating the CAP Hook-up fees as
21 revenues, it also provides for a "true-up" between the amounts collected and expenditures
22 by refunding any excess to customers.⁴

23

² The recharge facility is located at the Kai Farms a certified Groundwater Savings Facility.

³ For example, in 2009, the Company purchased 4,000 AF from the City of Tucson for \$489,000.

⁴ Decision No. 62450, page 11.

1 **Q. Is the Company proposing to include a liability component in its rate base to reflect**
2 **that ratepayers have provided funds for the CAP Charge?**

3 A. No. However, if Deferred CAP Charges are recognized in rate base, an offsetting liability
4 to recognize that ratepayers have funded the CAP charges and that the amounts are to be
5 trued-up is appropriate. That is, a deferred CAP liability account, or contra account, is
6 appropriate to offset the Deferred CAP charge asset.

7
8 **Q. What is Staff's recommendation?**

9 A. Staff recommends a reduction of \$28,563 to the Deferred CAP charge from \$1,104,743 to
10 \$1,076,180. Staff also recommends recognition of a deferred CAP liability account in the
11 amount of \$1,076,180, as shown in Schedule JMM-8.

12
13 **VII. OPERATING INCOME ADJUSTMENTS**

14 *Operating Income Summary*

15 **Q. What are the results of Staff's analysis of test year revenues, expenses, and operating**
16 **income?**

17 A. As shown in Schedules JMM-9 and JMM-10, Staff's analysis resulted in test year
18 revenues of \$2,334,747, expenses of \$2,024,301 and operating income of \$310,446.

19
20 *Operating Income Adjustment No. 1 – Purchased Water Expense*

21 **Q. Why did Staff make an adjustment to Purchased Water Expense?**

22 A. Staff adjusted Purchased Water expense to recognize that CAP Municipal and Industrial
23 ("M&I") and CAP Capital charges are scheduled to increase. Since the scheduled cost
24 increases or similar increases are almost certain, Staff considers them to be known and
25 measurable.

26

1 **Q. What method did Staff use to calculate its adjustment?**

2 A. Staff normalized the CAP M&I and CAP Capital charges by calculating the mean average
3 over a five year period using information in CAP's Final 2013 to 2018 Rate Schedule.
4

5 **Q. What is Staff's recommendation?**

6 A. Staff recommends increasing purchased water expenses by \$47,911, as shown in Staff
7 Schedule JMM-11.
8

9 *Operating Income Adjustment No. 2 – Water Testing Expense*

10 **Q. What did the Company propose for water testing expense?**

11 A. The Company proposed its recorded test year expense of \$3,906.
12

13 **Q. What adjustment did Staff make?**

14 A. Staff adjusted the water testing expense upward by \$9,761, from \$3,906 to \$13,667, to
15 reflect Staff's recommended amount. Please see the attached Engineering Report.
16

17 **Q. What is Staff's recommendation?**

18 A. Staff recommends increasing water testing expense by \$9,761, as shown in Schedule
19 JMM-12.
20

21 *Operating Income Adjustment No. 3 – Miscellaneous Expense*

22 **Q. Does the Company's application request to recover expenses not necessary to the**
23 **provision of water services?**

24 A. Yes. The Company's application includes \$1,311 in Miscellaneous Expenses related to
25 lunches and dinners.
26

1 **Q. What is Staff's recommendation?**

2 A. Staff recommends decreasing Miscellaneous Expense by \$1,311, from \$11,424 to
3 \$10,113, as shown in Schedule JMM-13.

4
5 *Operating Income Adjustment No. 4 – Depreciation Expense*

6 **Q. How did Staff calculate depreciation expense?**

7 A. Staff recomputed depreciation expense on a going-forward basis by applying Staff's
8 recommended depreciation rates by account to Staff's recommended plant-in-service
9 balances and reducing that result by the amortization of contributions-in-aid-of
10 construction ("CIAC"), as shown in Schedule JMM-14.

11
12 **Q. What is Staff's recommendation?**

13 A. Staff recommends reducing depreciation expense by \$40,418, from \$570,649 to \$530,231,
14 as shown in Schedule JMM-14.

15
16 *Operating Income Adjustment No. 5 – Property Tax Expense*

17 **Q. What method has the Commission typically adopted to determine property tax**
18 **expense for ratemaking purposes for Class C and above water utilities?**

19 A. The Commission's practice in recent years has been to use a modified ADOR
20 methodology for water and wastewater utilities.

21
22 **Q. Did Staff calculate property taxes using the modified ADOR method?**

23 A. Yes. As shown in Schedule JMM-15, Staff calculated property tax expense using the
24 modified ADOR method for both test year and Staff-recommended revenues. Since the
25 modified ADOR method is revenue dependent, the property tax is different for test year
26 and recommended revenues.

1 **Q. What does Staff recommend for test year property tax expense?**

2 A. Staff recommends the same test year property tax expense as the Company, as shown in
3 Schedule JMM-15.
4

5 *Operating Income Adjustment No. 6 – Commission Tax Allowance Policy - Income Tax Expense*

6 **Q. What adjustment did Staff make to Income Tax Expense?**

7 A. The Commission on February 12, 2013, created a new Commission Tax Allowance Policy
8 that makes income tax of utilities that are not C corporations an allowable expense.
9

10 **Q. Has Staff included an adjustment to account for this change in policy?**

11 A. Yes, Staff calculated test year income taxes consistent with the adopted policy of \$91,962,
12 as shown in schedule JMM-2.
13

14 **Q. What is Staff recommending?**

15 A. Staff recommends reducing Income Tax expense by \$14,282, from \$106,244 to \$91,962,
16 as shown in Schedule JMM-16.
17

18 **VIII. REVENUE REQUIREMENT**

19 **Q. What operating income and revenue requirement does Staff recommend for the**
20 **Company in this case?**

21 A. Yes. Staff recommends total operating revenue of \$2,191,924, a decrease of \$142,823, or
22 6.12 percent, from the Staff-adjusted test year revenue of \$2,334,747, to provide a
23 \$201,902 operating income and a 9.10 percent return on the \$2,218,704 Staff-adjusted
24 FVRB and OCRB. For more information on the calculation of the rate of return see the
25 Direct Testimony of John Cassidy.
26

IX. RATE DESIGN

Q. Did Staff prepare a summary of the Company's present rates, proposed rates, and Staff's recommended rates?

A. Yes. See Schedules JMM-17.

Q. Did Staff prepare a typical bill analysis for a 5/8" x 3/4" residential customer water customer?

A. Yes. See Schedules JMM-18.

Q. What does Staff recommend for other service charges?

A. Staff presents its recommended other service charges in Schedule JMM-17, and they reflect Staff's experience of what are reasonable and customary charges.

Q. What is Staff's recommendation?

A. Staff recommends approval of its rates and charges, as shown in Schedules JMM-17.

X. AFFILIATED AND RELATED ENTITIES

Affiliate and Related Entities Structure

Q. Who are the officers of Vail Water Company?

A. The Officers of Vail Water Company are as follows, as contained in Attachment B:

President – Sheldon J. Mandell

Treasurer – Howard J. Mandell

Secretary – Paul Mandell

Vice President – Christopher T. Volupe

1 **Q. Please identify the members, managers, officers, or partners of the other affiliated or**
2 **related entities.**

3 A. The members, managers, or partners for each entity are as follows, as contained in
4 Attachment B:

5
6 TEM Corp.

7 Other Officer – Lean A. Estes

8 Secretary/Treasurer/Vice President – Christopher T. Volupe

9 Vice-President – William A. Estes III

10 President – Shirley A. Estes

11
12 Estes Development Co., L.L.C.

13 Member – William A. Estes III

14 Member – Christopher T. Volupe

15
16 Vail Valley Associates, L.L.C.

17 Manager – Christopher H. Sheafe

18 Manager – William A. Estes

19 Member – The Sheafe

20 Manager – Robert C. Neill

21 Member – BSE Trust

22 Member – Robert and Mary Neill Family Trust Member

23
24 Mandell Vail Corp

25 President – Sheldon J. Mandell

26 Secretary – Howard J. Mandell

1 Vice-President – Arthur N. Mandell

2 Vice-President – Allen E. Mandell

3
4 Del Lago Golf LLC

5 Manager – Del Largo Golf LLC

6 Member – The Estes Living Trust

7 Member – The Estes Co.

8
9 **Q. How does the Commission define an affiliate?**

10 A. According to Rule 14-2-801(1) of the Arizona Administrative Code (“A.A.C.”):

11
12 *“Affiliate,” with respect to the public utility, shall mean any other entity*
13 *directly or indirectly controlling or controlled by, or under direct or*
14 *indirect common control with, the public utility. For purposes of this*
15 *definition, the term “control” (including the correlative meanings of the*
16 *terms “controlled by” and “under common control with”), as used with*
17 *respect to any entity, shall mean the power to direct the management*
18 *policies of such entity, whether through ownership of voting securities, or*
19 *by contract, or otherwise.*

20
21 **Q. Is it true that A.A.C. R14-2-801 et seq only apply to Class A utilities?**

22 A. Yes. However, even though the rules do not technically apply to Vail, the principles set
23 forth in those rules, as well as the standards under Generally Accepted Accounting
24 Principles (“GAAP”), are relevant in this case because of the organizational relationships
25 between the Company, its parent, and the management company.

26
27 **Q. How is a related party defined under GAAP?**

28 A. A related party includes a party that “can significantly influence the management or
29 operating policies of the transacting parties or if it has an ownership interest in one of the

1 transacting parties and can significantly influence the other to an extent that one or more
2 of the transacting parties might be prevented from fully pursuing its own separate
3 interests.”
4

5 **Q. What treatment does GAAP give to transactions between such parties?**

6 A. GAAP states:

7
8 *Transactions involving related parties cannot be presumed to be carried*
9 *out on an arm's-length basis, as the requisite conditions of competitive,*
10 *free-market dealings may not exist. Representations about transactions*
11 *with related parties, if made, shall not imply that the related party*
12 *transactions were consummated on terms equivalent to those that prevail*
13 *in arm's-length transactions unless such representations can be*
14 *substantiated.*⁵
15

16 **Q. Do the relationship and activities of Vail and TEM suggest that they are affiliates?**

17 A. Yes.
18

19 **Q. Should a higher standard of evidence be placed on affiliate or related-party**
20 **transactions that are not subject to a competitive bidding process?**

21 A. Yes. For affiliate or related-party transactions, a mere showing that costs were incurred is
22 not sufficient evidence to demonstrate that the costs are appropriately valued. Such
23 transactions cannot be presumed to be carried out on an arm's length basis and, therefore,
24 give rise to the potential for additional charges. Using a competitive bidding process
25 provides evidence that the best quality service at the lowest price is obtained. Also, a
26 competitive bidding process provides incentive to the outside service to run as efficiently
27 as possible in order to keep costs low.
28

⁵ Accounting Standards Codification 850-10-50-5.

1 **Q. What happens when the competitive bidding process is ignored?**

2 A. An unregulated affiliate may be able to pass expenses onto the regulated entity and have
3 ratepayers pay for costs that are not necessary for the provision of water service.
4

5 **Q. Is there any evidence that such may have happened in this case?**

6 A. Yes. As TEM Corp. points out in an October 10, 1996 proposal to Del Largo Water
7 Company,⁶ the following are among the reasons used to justify TEM Corp. managing Del
8 Lago Water Company (See Attachment C):
9

- 10 • **Vail Valley Joint Venture lower its operating Costs.** Currently all of Doug's,
11 Kip's, Gloria's, and Lisa's time are billed to VVJV. With the acceptance of this
12 proposal, any time spent on DLWCO would not be included in the TEM cost
13 reimbursements paid by VVJV. For instance, Kip's time may drop from 15% to
14 5%, Doug's from 85% to 80%, Gloria's from 20% to 10% and so on.
15 Additionally, if further staffing is needed for TEM to complete its duties, VVJV
16 would not be burdened with a budget increase.
17
- 18 • **Mandell position is enhanced in VVJV.** The Mandell group owns 60% of VVJV
19 and 50% of DLWCO; *hence, every dollar saved at the VVJV level is more*
20 *valuable to them than a dollar spent on DLWCO (emphasis added).*
21
- 22 • **TEM fees is passed on to customers.** When the rate base is based on the physical
23 plant, the rate charged to customers includes overhead. For instance, if your
24 physical plant is worth \$1,000,000 and your overhead is \$75,000 per year, you are
25 allowed to earn an 8% profit on the physical plant plus recoup your overhead. In

⁶ Currently, Vail Water Company.

1 this case fees should be \$155,000. *DLWCO has exposure from the Corporation*
2 *Commission if costs, passed on to its customers, are not expended.*
3 *Ramifications may include lowering the rate. Our goal is to get as large an*
4 *increase as possible at the next rate hearing, again this results in a win for the*
5 *Owners. If a larger fee to TEM is justifiable, perhaps additional benefit could be*
6 *passed on to VVJV through further cost reductions (emphasis added).*

7
8 **Q. Does Staff have concerns with this management contract?**

9 A. Yes. As noted above, costs can be shifted from VVJV to Vail Water Company, which can
10 lower VVJV's operating costs and increase Vail Water Company's operating costs at the
11 expense of rate payers. Especially since the Company, in response to Staff data request
12 2.8, stated that the partners of Vail Valley Joint Venture are shareholders of Vail Water
13 Company, but do not exercise control over Vail Water Company.

14
15 **Q. Has the Company ever again bid out its management services?**

16 A. No.

17
18 **Q. What is Staff's recommendation?**

19 A. Staff recommends that the Company seek competitive bids for its management services no
20 less frequently than every three years, and file the management services bid
21 documentation with the Utilities Compliance Division along with filing a confirmation
22 letter in Docket Control. The bid documentation should at a minimum contain the
23 following:

- 24
25 a. The names of at least five vendors from which the Company has solicited bids.
26 b. A comparison of the prices or rates.

1 c. The rationale for selecting the winning bidder if the lowest cost is not used.

2
3 *Employee and Salaries*

4 **Q. How is the Company's organizational structure set-up?**

5 A. Vail Water Company has both its own employees and also an affiliate management
6 company, TEM, that it has contracted to manage its Company.

7
8 **Q. How many employees does Vail Water Company employ, and what are their**
9 **positions?**

10 A. In response to Staff data request 2.1, the Company noted that it has six employees: an
11 Operator, a Billing Manager, a Customer Service Representative, and three field
12 technicians.

13
14 **Q. How many employees of TEM does TEM allocate salaries to Vail?**

15 A. In response to Staff data request 2.5, the Company noted that it allocates a percentage of
16 the following employee salaries to Vail Water Company: Vice President, Assistant
17 Controller, Accounting/Legal Assistant, and Administrative Assistant.

18
19 **Q. Did the Company provide a worksheet that displays how TEM Corp. allocated its**
20 **Management Fees to Vail Water Company?**

21 A. Yes (See Attachment D). The Schedule contains a category for Salaries, Benefits, and
22 other Expenses. Each expense item is then allocated by a *vague guesstimated percentage*
23 to arrive at a dollar amount to be allocated to Vail Water Company.

24

1 **Q. Does Staff find this methodology adequate?**

2 A. No. The Company is out of compliance with National Association of Regulatory Utility
3 Commissioners ("NARUC").
4

5 **Q. What does NARUC state about allocations of cost?**

6 A. To the maximum extent practicable, in consideration of administrative costs, costs should
7 be collected and classified on a direct basis for each asset, service or product provided.
8

9 **Q. What are direct costs?**

10 A. Costs which can be specifically identified with a particular service or product.
11

12 **Q. Can you give an example?**

13 A. Yes. Most legal invoices that Staff reviews specify the number of hours that an attorney
14 works on different areas of a rate case. For, example, .25 hours reviewing Staff data
15 requests, 1 hour working on company filing, etc., along with the cost charged per each
16 hour of work.
17

18 **Q. Could TEM Corp. have used this methodology to directly track TEM Corp. hours?**

19 A. Yes.
20

1 Q. Does the NARUC USoA also state that "Charges to utility plant or to a salaries
2 expense account shall be based upon the actual time engaged in either plant
3 construction or providing operational services. In the event actual time spent in the
4 various activities is not available or practicable, salaries should be allocated upon the
5 basis of a study of the time engaged during the representative period. Charges
6 should not be made to the accounts based upon estimates or in an arbitrary
7 fashion?"

8 A. Yes.

9
10 Q. What is Staff's recommendation?

11 A. Staff recommends that the Company comply with the NARUC USoA, and directly track
12 salary costs from its affiliate, TEM Corp., to the maximum extent practical by use of
13 timesheets in units no larger than hourly.

14
15 *Affiliates General Ledger*

16 Q. Did Staff ask for TEM Corp.'s general ledger?

17 A. Yes. However, the Company refused to provide Staff with TEM Corp.'s general ledger.

18
19 Q. Why is an affiliate's general ledger important?

20 A. Without the affiliate's general ledger, Staff is unable to properly/adequately complete its
21 audit of TEM Corp.'s allocation. Staff cannot verify that the salaries presented on the
22 Company's work sheet are accurate. In addition, the Company states that it has also
23 removed the affiliated profit; however, the Company's assertion cannot be verified
24 without access to its general ledger and other accounting records.

25

1 **Q. What does NARUC USoA state about general records and transactions with**
2 **associated Companies?**

3 A. Each utility shall keep its books of account, and all other books, records, and memoranda
4 which support the entries in such books of accounts so as to be able to furnish readily full
5 information as to any item included in any account. Each entry shall be supported by such
6 detailed information as will permit a ready identification, analysis, and verification of all
7 facts relevant thereto.

8
9 Further, each utility shall keep its accounts and records so as to be able to furnish
10 accurately and expeditiously statements of all transactions with associated companies.

11
12 **Q. What is Staff's recommendation?**

13 A. Staff recommends that the Commission direct the Company to cooperate with Staff and
14 provide information Staff may need in the Company's affiliate general ledger and other
15 accounting records to verify costs requested for recovery that are direct charged or
16 allocated from or through the affiliate.

17
18 **XI. CENTRAL ARIZONA PROJECT**

19 *Introduction*

20 **Q. Please give some background on the Central Arizona Project.**

21 A. Authorized as part of the Colorado River Basin Project Act (Pub. L. 90-537), in 1968, the
22 CAP is a multi-purpose water project which delivers water for irrigation, municipal and
23 industrial uses in central and southern Arizona. CAP Municipal and Industrial
24 subcontractors, of which Vail Water Company is one, have entered into CAP subcontracts
25 with the Central Arizona Water Conservation District ("CAWCD") and the United States
26 Secretary of the Interior through which they obtain water allocations in acre feet from the

1 Colorado River. The M&I fees recoup construction costs spent by CAP that are payable
2 to the United States. The Company's payment of M&I fees to CAP assures that the
3 Company's CAP allocation remains available to them. Vail's current CAP allocation is
4 1,875 acre feet. The annual M&I is payable in equal semi-annual installments.

5
6 When the Company actually takes delivery of CAP water allotted to them it pays an
7 annual CAP Operation, Maintenance, and Replacement ("OM&R") expense in monthly
8 payments.

9
10 **Q. How has the Commission dealt with CAP expenses in other cases?**

11 A. The Commission in Decision No. 68302 (November 14, 2005)⁷, distinguished between
12 CAP water that was being delivered as used and useful and CAP water that was not being
13 delivered. In that case, two golf courses took delivery of 279 acre feet of CAP water. The
14 279 acre feet of CAP water was deemed used and useful and, therefore, the previously
15 deferred M&I charges were included in rate base and amortized to expense over 20 years.
16 Similarly, in Decision No. 71845 (August 24, 2010)⁸, the Commission determined that
17 1,003 acre feet of CAP was used and useful and, therefore, the previously deferred M&I
18 charges were included in rate base and amortized to expense over 20 years.

19
20 The Company was authorized to defer CAP M&I costs that were not deemed used and
21 useful because that portion of its CAP allocation was not being utilized at the time. Each
22 year the M&I balance is reduced by amounts amortized and by sales of non-potable CAP
23 water pursuant to its NP-274 tariff. Customers reimburse the Company for the related
24 ongoing (not to be confused with *deferred*) M&I capital charges and, accordingly, these
25 costs do not affect the deferred CAP balance. However, when the Company sells non-

⁷ Docket No. W-01445A-04-0650.

⁸ Docket No. W-01445A-08-0440.

1 potable CAP water pursuant to the NP-274 tariff, it expenses the related ongoing M&I
2 capital charges to account 6022 (making them a pass-thru expense similar to sales taxes)
3 instead of deferring them. The balance is then further reduced by CAP Hook-up fees
4 collected, and increased by an allowance for funds used during construction ("AFUDC")
5 on the balance. The Company has projected its deferred CAP balance for every year until
6 2025. The Company compares the projected amount to be recovered to the actual amount
7 authorized to be recovered in the rate case and uses this data to calculate its proposed
8 Hook-up fee in the next rate case to provide to full recovery by 2025.

9
10 **Q. How will CAP water benefit the Company?**

11 A. The Company will now have another source of potable water, besides water that is
12 pumped from the ground. The Company along with its real-estate affiliates can
13 demonstrate more easily an assured water supply, in order to expand housing in its service
14 area.

15
16 **Q. Does the Company have a CAP Hook-up fee?**

17 A. Yes. In Decision No. 62450 the Commission approved a CAP Hook-up fee subject to the
18 following conditions:

19
20 a. The tariff would apply to all new subdivisions and line extension agreements that
21 are approved for the north system from the end of the 1998 TY forward. Once the
22 interconnection is completed between the north and south systems, the tariff would
23 apply to all new subdivisions and line extension agreements in the combined north
24 and south systems;

25
26 b. Vail must be recharging CAP water within 6 months of this Decision;

- 1 c. All CAP Hook-up Fees and CAP Service charges are to be placed in a separate
2 interest bearing account;
3
- 4 d. Revenue collected from the CAP Hook-up Fee and CAP Service Charge can only
5 be used for payment of the CAP holding fee and Municipal and Industrial costs;
6
- 7 e. The CAP Service Charge shall be identified as a separate line item charge on the
8 customer bill;
9
- 10 f. Final plans for the direct use of CAP water within Vail's service territory are to be
11 submitted to the Commission no later than December 31, 2010;
12
- 13 g. Vail must directly use the CAP allocation within its service territory by December
14 31, 2015;
15
- 16 h. No time extensions will be allowed for any reason;
17
- 18 i. Vail shall submit annual reports to the Utilities Division Director detailing the
19 progress of plans to use CAP water directly in its service territory and plans for
20 actual construction of any necessary facilities. The reports shall be submitted each
21 July 1, beginning in 2001;
22
- 23 j. If Vail does not comply with either of the timeframes in f or g, all CAP charges
24 will cease at that time and any monies remaining in the CAP account shall be
25 refunded in a manner to be determined by the Commission at that time;

- 1 k. The Commission shall allow Staff to automatically impose fines and or other
2 sanctions against Vail if the timeframes in item g are not met;
3
4 l. If Vail does not comply with the timeframes in item g and it sells its CAP
5 allocation, any net profit shall be distributed to the customers in a manner to be
6 determined by the Commission; and
7
8 m. Vail should submit annual reports regarding the amount of CAP Hookup Fee and
9 CAP Service Fees collected. The reports should be submitted by each January 31
10 and cover the previous calendar year. The first report should be submitted by
11 January 31, 2001, and should contain the following information:
12
13 i. The name of each entity paying a CAP Hook-up Fee;
14 ii. The amount of CAP Hook-up Fee each entity paid;
15 iii. The amount of CAP Service Charge collected;
16 iv. The balance in the CAP trust account;
17 v. The amount of interest earned in the CAP trust account;
18 vi. The amount of money spent from the CAP trust account; and a
19 vii. A description of what was paid for with monies from the CAP trust
20 account.
21

22 **Q. Did the Company comply with the conditions set forth in Decision No. 62450?**

23 A. No. Specifically, the Company did not comply with item f. Staff's Compliance Section
24 notified the Company that it was out of compliance.
25

26 **Q. What was the result of the non-compliance?**

27 A. A hearing ensued and the Company, in a settlement agreement, was awarded an extension
28 of time in Decision No. 73218 for item f until June 30, 2013.
29

1 **Q. As part of the settlement agreement that was approved by the Commission in**
2 **Decision No. 73218, the Company was ordered to propose in its rate case a surcharge**
3 **mechanism to address CAP related costs. Has the Company done so?**

4 A. Yes. The Company proposes that the CAP surcharge recover the following: depreciation
5 on the CAP project investment, CAP M&I delivery charges, wheeling fees from
6 Tucson Water, a return on net investment, income taxes, and other CAP-related costs
7 and credits.

8
9 *Hook-up Fees*

10 **Q. Has the Company asked to continue its CAP Hook-up fees?**

11 A. Yes. As a result of the Company's non-compliance with Decision No. 62450, the Hook-
12 up fee was temporarily suspended but, as part of the settlement agreement reached in
13 Decision No. 73218, the Company was allowed to reinstate its CAP Hook-up fees.

14
15 **Q. Are Hook-up fees normally used to pay for 100 percent of Plant Projects?**

16 A. No. They are intended to help offset project costs, not entirely pay for them. The theory
17 behind a hook-up fee is that customers coming onto the system should help pay for
18 improvements and not receive benefits paid for by previous or continuing ratepayers.
19 Staff typically recommends that utilities seeking new certificates of convenience and
20 necessity ("CC&N") to fund projects with no more than a combined CIAC and AIAC of
21 30 percent, and requires Companies to invest 70 percent of their own funds.

22

1 **Q. What happens when utilities are allowed to fund plant investments with large**
2 **percentages of AIAC and CIAC?**

3 A. Obviously, the Company's plant is built by developers and ratepayers, which results in
4 decreased rate base, from which the Company can earn a return. The Commission
5 encourages Companies to invest and earn a return on their investments.
6

7 **Q. What is the typical method to account for Hook-up fees?**

8 A. Hook-up fees are normally recorded as CIAC.
9

10 **Q. Currently, how does Vail account for the hook-up fees?**

11 A. Vail records the hook-up fees as revenue. Further, Decision 62450 stated that all funds
12 received as a result of both the CAP Service Charge and the CAP Hook-up Fee will be
13 deposited in an interest bearing segregated account and used solely for CAP-related
14 expenses. Also, as previously discussed, while Decision No. 62450 refers to treating the
15 CAP Hook-up fees as revenues, it also provides for a "true-up" between the amounts
16 collected and expenditures by refunding any excess to customers.
17

18 **Q. What was the status of the Company's CAP Account in Decision No. 73218?**

19 A. In Decision No. 73218, the Company stated, (See Finding of Fact 30), that it had collected
20 approximately \$4.5 million in its CAP account from 2000 until December 2011, and had
21 expended approximately \$2.7 million on M&I expenses to retain its CAP allocation,
22 leaving approximately \$1.9 million in the CAP account.⁹ Further, in Finding of Fact 31,
23 the CAP account through December 31, 2011, was funded by approximately 75 percent by
24 developers and 25 percent by ratepayers.¹⁰
25

⁹ See Decision No. 73218 (June 5, 2012), page 10 line 23.

¹⁰ See Decision No. 73218 (June 5, 2012), page 11, line 2.

1 **Q. What is the Company's current CAP account status?**

2 A. Based on a January 14, 2013 filing, the Company indicated it has a balance in the CAP
3 account of \$1,626,866.

4
5 **Q. To date, for what have the CAP Hook-up fees and ratepayers' CAP surcharge**
6 **monies collected in the CAP account been expended?**

7 A. To date, monies in the CAP account have been used to pay for CAP M&I charges.
8

9 **Q. Has the Company estimated the CAP project costs to connect a CAP Water line from**
10 **Tucson Water to the Company service area?**

11 A. Yes. Based on the Company's seven-year capital project plan, the Company estimates it
12 will expend \$378,000 for the CAP Delivery line in 2013, and \$1,525,330 in 2014, for a
13 total of \$1,903,330 (See Attachment E).

14
15 **Q. Does Staff have a recommendation on how the monies in the CAP fund should be**
16 **expended on a going forward basis?**

17 A. Yes. Since the M&I fees are already reflected in Staff's recommended revenue
18 requirement, Staff recommends that any remaining money in the CAP account be used to
19 fund the CAP Water line from Tucson Water to Vail Water, and that the funds used from
20 the CAP account to fund the CAP Water line be treated as CIAC.

21
22 **Q. Why does Staff recommend monies that are expended from the CAP account to fund**
23 **the CAP water line be treated as CIAC?**

24 A. Decision No. 62450 provides for the excess of funds collected over expenditure to be
25 refunded to ratepayers. Treating the funds as CIAC is an efficient and reasonable manner
26 to effectuate the refund.

1 **Q. Does Staff recommend that the Company continue its CAP Hook-up fee?**

2 A. Yes, to a certain point. Staff recommends that the CAP Hook-up Fee be discontinued
3 once ratepayers have paid for the CAP waterline infrastructure.
4

5 *CAP Service Charge*

6 **Q. Does the Company also currently have a CAP Service Charge?**

7 A. No. In Decision No. 62450 the Commission also authorized the Company to implement a
8 CAP Service Charge of \$0.32 per 1,000 gallons. However, the Company suspended its
9 CAP Services Charges in November 2011 and, as part of the settlement agreement in
10 Decision No. 73218, the Company has not re-instated the \$0.32 per 1,000 gallons
11 surcharge.
12

13 **Q. Is it Staff's understanding that the Company proposes to eliminate the CAP Service
14 Charge and instead implement a CAP surcharge mechanism?**

15 A. Yes.
16

17 *Company's CAP surcharge adjuster mechanism*

18 **Q. Have you reviewed the Company's CAP surcharge mechanism?**

19 A. Yes. The Company proposes the following six components be included in its CAP
20 surcharge mechanism:

- 21 1. Annual depreciation on CAP Project Plant Costs.
- 22 2. Annual CAP M&I Charges.
- 23 3. Annual Tucson Water Wheeling Fees.
- 24 4. Annual Recharge Credits.
- 25 5. Return on investment plus income taxes.
- 26 6. Other CAP-related costs credits.

1 **Q. Does Staff recommend inclusion of an Annual Depreciation on CAP Project Plant**
2 **Costs (component 1) and a return of investment plus income taxes (component 5) as**
3 **proposed by the Company in the CAP surcharge mechanism?**

4 A. No. As discussed above, the Company has already accumulated sufficient Hook-up fees
5 and CAP surcharges from ratepayers and developers to pay for most of the project plant
6 costs. Staff has already recommended that any remaining monies left in the CAP account
7 be used for CAP Plant. The Company, as a partner in the CAP project, should fund any
8 remaining amounts. Under Staff's recommendation, it is not equitable to require
9 ratepayers to pay the Company a rate of return on CAP Project Plant funded by ratepayers.

10
11 **Q. Does Staff recommend that the Annual CAP M&I charges (component 2) be**
12 **included in the CAP surcharge mechanism?**

13 A. No. As the Company's consultant has stated, \$200,000 in CAP M&I charges will be
14 included in base rates.

15
16 **Q. How will the Company be made whole if the CAP M&I charges are not included in**
17 **the CAP surcharge mechanism, since CAP fees are schedule in increase in future**
18 **year?**

19 A. As explained above, Staff has normalized the CAP M&I and capital charges as expense to
20 reflect the provisional CAP rates until 2018.

21
22 **Q. What costs does Staff recommend be included in the CAP surcharge mechanism?**

23 A. Any CAP costs that the Company is not currently recovering. Stated another way, any
24 costs that will not make the Company whole outside of the rate case should be included in
25 the CAP surcharge mechanism. These costs might include:

- 1 a. Future CAP Operation, Maintenance, and Replacement ("OM&R") expense which
2 the Company will incur once it takes delivery of its CAP allocation.
3 b. Any wheeling fees between Tucson Water and the Company.
4

5 Staff recommends that the Company through its own initiative file in this Docket a
6 surcharge request once these CAP costs become known and measurable.
7

8 Staff also recommends that any continuation of CAP surcharges be reviewed in the
9 Company's next rate case.
10

11 **Q. Does this conclude your Direct Testimony?**

12 A. Yes.

Vail Water Company
Docket No. W-01651B-12-0339
Test Year Ended: December 31, 2011

Direct Testimony of Jeffrey M. Michlik

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REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY FAIR VALUE	(B) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 3,312,773	\$ 2,218,704
2	Adjusted Operating Income (Loss)	\$ 312,107	\$ 310,447
3	Current Rate of Return (L2 / L1)	9.42%	13.99%
4	Required Rate of Return	10.40%	9.10%
5	Required Operating Income (L4 * L1)	\$ 344,528	\$ 201,902
6	Operating Income Deficiency (L5 - L2)	\$ 32,421	\$ (108,545)
7	Commission Tax Allowance Policy - Gross Revenue Conversion Factor	1.3606	1.3158
8	Required Revenue Increase (L7 * L6)	\$ 44,113	\$ (142,823)
9	Adjusted Test Year Revenue	\$ 2,334,747	\$ 2,334,747
10	Proposed Annual Revenue	\$ 2,378,860	\$ 2,191,924
11	Required Increase in Revenue (%)	1.89%	-6.12%

References:

Column (A): Company Schedule A-1

Column (B): Staff Schedules JMM-2 and JMM-8

COMMISSION TAX ALLOWANCE POLICY - GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<u>Commission Tax Allowance Policy - Calculation of Gross Revenue Conversion Factor:</u>					
1	Commission Tax Allowance Policy - Revenue	100.0000%			
2	Commission Tax Allowance Policy - Uncollectible Factor	0.0000%			
3	Commission Tax Allowance Policy - Revenues (L1 - L2)	100.0000%			
4	Commission Tax Allowance Policy - Combined Federal and State Income Tax and Property Tax Rate (Line 18)	24.0003%			
5	Subtotal (L3 - L4)	75.9997%			
6	Commission Tax Allowance Policy - Revenue Conversion Factor (L1 / L5)	1.315794			
<u>Commission Tax Allowance Policy - Calculation of Effective Tax Rate:</u>					
7	Operating Income Before Commission Tax Allowance Policy (Arizona Taxable Income)	100.0000%			
8	Commission Tax Allowance Policy - Arizona State Income Tax Rate (from worksheet)	2.8836%			
9	Commission Tax Allowance Policy - Income (L7 - L8)	97.1164%			
10	Commission Tax Allowance Policy - Applicable Federal Income Tax Rate (Line 48)	20.5622%			
11	Commission Tax Allowance Policy - Effective Federal Income Tax Rate (L9 x L10)	19.9693%			
12	Commission Tax Allowance Policy - Combined Federal and State Income Tax Rate (L8 + L11)		22.8529%		
<u>Commission Tax Allowance Policy - Calculation of Effective Property Tax Factor</u>					
13	Unity	100.0000%			
14	Commission Tax Allowance Policy - Combined Federal and State Income Tax Rate (L12)	22.8529%			
15	Commission Tax Allowance Policy - One Minus Combined Income Tax Rate (L13-L14)	77.1471%			
16	Commission Tax Allowance Policy - Property Tax Factor (JMM-15, L27)	1.4874%			
17	Commission Tax Allowance Policy - Effective Property Tax Factor (L15*L16)		1.1475%		
18	Commission Tax Allowance Policy - Combined Federal and State Income Tax and Property Tax Rate (L12+L17)			24.0004%	
19	Commission Tax Allowance Policy - Required Operating Income (Schedule JMM-1, Line 5)	\$ 201,902			
20	Commission Tax Allowance Policy - Adjusted Test Year Operating Income (Loss) (JMM-8, L35)	310,447			
21	Commission Tax Allowance Policy - Required Increase in Operating Income (L19 - L20)		\$ (108,545)		
22	Commission Tax Allowance Policy - Income Taxes on Recommended Revenue (Col. [C], L47)	\$ 59,808			
23	Commission Tax Allowance Policy - Income Taxes on Test Year Revenue (Col. [A], L47)	91,962			
24	Commission Tax Allowance Policy - Required Increase in Revenue to Provide for Income Taxes (L22 - L23)		(32,154)		
25	Commission Tax Allowance Policy - Recommended Revenue Requirement (Schedule JMM-1, Line 10)	\$ 2,191,925			
26	Commission Tax Allowance Policy - Uncollectible Rate	0.0000%			
27	Commission Tax Allowance Policy - Uncollectible Expense on Recommended Revenue (L25*L26)	\$ -			
28	Commission Tax Allowance Policy - Adjusted Test Year Uncollectible Expense	\$ -			
29	Commission Tax Allowance Policy - Required Increase in Revenue to Provide for Uncollectible Exp. (L27-L28)				
30	Commission Tax Allowance Policy - Property Tax with Recommended Revenue (Schedule JMM-15, L21)	\$ 101,557			
31	Commission Tax Allowance Policy - Property Tax on Test Year Revenue (Schedule JMM-15, Line 17)	103,681			
32	Commission Tax Allowance Policy - Increase in Property Tax Due to Increase in Revenue (L30-31)		(2,124)		
33	Commission Tax Allowance Policy - Total Required Increase in Revenue (L21 + L24 + L29 + L32)		\$ (142,823)		
<u>Commission Tax Allowance Policy Calculation of Income Tax:</u>					
34	Commission Tax Allowance Policy - Revenue (Schedule JMM-1, Col. [B], Line 9 & Sch. JMM-1, Col. [B] Line 10)	\$ 2,334,747	\$ (142,822)	\$ 2,191,925	
35	Commission Tax Allowance Policy - Operating Expenses Excluding Income Taxes	\$ 1,932,339		\$ 1,930,215	
36	Commission Tax Allowance Policy - Synchronized Interest (L51)	\$ -		\$ -	
37	Commission Tax Allowance Policy - Arizona Taxable Income (L34 - L35 - L36)	\$ 402,408		\$ 261,711	
38	Commission Tax Allowance Policy - Arizona State Income Tax Rate	2.8836%		2.8836%	
39	Commission Tax Allowance Policy - Arizona Income Tax (L37 x L38)	\$ 11,604		\$ 7,547	
40	Commission Tax Allowance Policy - Federal Taxable Income (L37- L39)	\$ 390,804		\$ 254,164	
41	Commission Tax Allowance Policy - Federal Effective Tax	20.5622%		20.5622%	
42	Commission Tax Allowance Policy - Federal Tax	\$ 80,358		\$ 52,262	
43		\$ -		\$ -	
44		\$ -		\$ -	
45		\$ -		\$ -	
46		\$ 80,358		\$ 52,262	
47	Commission Tax Allowance Policy - Combined Federal and State Income Tax (L39 + L46)	\$ 91,962		\$ 59,808	
48	Commission Tax Allowance Policy - Applicable Federal Income Tax Rate [Col. [C], L46 - Col. [A], L46] / [Col. [C], L40 - Col. [A], L40]			20.5622%	
<u>Commission Tax Allowance Policy - Calculation of Interest Synchronization:</u>					
49	Commission Tax Allowance Policy - Rate Base (Schedule JMM-3, Col. (C), Line 17)	\$ 2,218,704			
50	Commission Tax Allowance Policy - Weighted Average Cost of Debt	0.0%			
51	Commission Tax Allowance Policy - Synchronized Interest (L45 X L46)	\$ -			

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Schedule JMM-3

RATE BASE - ORIGINAL COST

LINE NO.	(A) COMPANY AS FILED	(B) STAFF ADJUSTMENTS	(C) STAFF AS ADJUSTED
1	Plant in Service	\$ 20,158,710	\$ 19,608,580
2	Less: Accumulated Depreciation	3,722,176	3,161,909
3	Net Plant in Service	<u>\$ 16,436,534</u>	<u>\$ 16,446,671</u>
<u>LESS:</u>			
4	Contributions in Aid of Construction (CIAC)	\$ 2,930,228	\$ 2,930,228
5	Less: Accumulated Amortization	605,832	\$ 605,832
6	Net CIAC	<u>2,324,396</u>	<u>\$ 2,324,396</u>
7	Advances in Aid of Construction (AIAC)	11,374,431	11,374,431
8	Customer Deposits	529,140	529,140
9	Deferred CAP Liability	-	1,075,643
<u>ADD:</u>			
10	Deferred CAP Charges	1,104,206	1,075,643
11	Deferred Tax Assets	-	-
12	Original Cost Rate Base	<u>\$ 3,312,773</u>	<u>\$ 2,218,704</u>

References:

Column [A]: Company Application
Column [B]: Testimony JMM
Column [C]: Column [A] + Column [B]

SUMMARY OF ORIGINAL COST RATE BASE ADJUSTMENTS

LINE NO.	ACCT. NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] ADJ #1 Retired Plant Ref: Sch JMM-5	[C] ADJ #2 Plant Retired to Wrong Account Ref: Sch JMM-6	[D] ADJ #3 Excess Capacity Ref: Sch JMM-7	[E] ADJ #4 CAP LTSC Ref: Sch JMM-8	[F] STAFF ADJUSTED
		<u>PLANT IN SERVICE:</u>						
1	301	Organization Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	302	Franchise Cost	-	-	-	-	-	-
3	303	Land and Land Rights	17,750	-	-	-	-	17,750
4	304	Structures and Improvements	399,328	(5,182)	-	-	-	394,146
5	305	Collecting and Impounding Res.	-	-	-	-	-	-
6	306	Lake River and Other Intakes	-	-	-	-	-	-
7	307	Wells and Springs	1,126,979	-	-	(268,743)	-	858,236
8	308	Infiltration Galleries and Tunnels	-	-	-	-	-	-
9	309	Supply Mains	2,995	-	-	-	-	2,995
10	310	Power Generation Equipment	-	-	-	-	-	-
11	311	Electric Pumping Equipment	1,553,110	(33,913)	1,838	-	-	1,521,035
12	320.1	Water Treatment Plants	-	-	-	-	-	-
13	320.2	Solution Chemical Feeders	-	-	-	-	-	-
14	330	Distribution Reservoirs & Standpipe	1,621,069	(242,293)	25,642	-	-	1,404,418
15	330.1	Storage Tanks	-	-	-	-	-	-
16	330.2	Pressure Tanks	-	-	-	-	-	-
17	331	Transmission and Distribution Mains	14,023,034	-	-	-	-	14,023,034
18	333	Services	12,451	-	-	-	-	12,451
19	334	Meters	923,082	-	-	-	-	923,082
20	335	Hydrants	492,908	-	-	-	-	492,908
21	336	Backflow Prevention Devices	7,901	-	-	-	-	7,901
22	339	Other Plant and Miscellaneous Equipment	6,553	-	-	-	-	6,553
23	340	Office Furniture and Fixtures	29,683	-	(27,480)	-	-	2,203
24	340.1	Computers and Software	15,621	-	-	-	-	15,621
25	341	Stores Equipment	54,807	-	-	-	-	54,807
26	343	Tools and Work Equipment	15,645	-	-	-	-	15,645
27	344	Laboratory Equipment	-	-	-	-	-	-
28	345	Power Operated Equipment	-	-	-	-	-	-
29	346	Communications Equipment	5,190	-	-	-	-	5,190
30	347	Miscellaneous Equipment	-	-	-	-	-	-
31	348	Other Tangible Plant	(149,395)	-	-	-	-	(149,395)
32		Total Plant in Service	\$ 20,158,710	\$ (281,388)	\$ -	\$ (268,743)	\$ -	\$ 19,608,580
33		Less: Accumulated Depreciation	3,722,176	(281,388)	(10,136)	(268,743)	-	3,161,909
34		Net Plant in Service	\$ 16,436,534	\$ -	\$ 10,136	\$ -	\$ -	\$ 16,446,671
35		<u>LESS:</u>						
36		Contributions in Aid of Construction (CIAC)						
37		Less: Accumulated Amortization	\$ 2,930,228	\$ -	\$ -	\$ -	\$ -	\$ 2,930,228
38		Net CIAC (L39 - L40)	605,832	-	-	-	-	605,832
39		Advances in Aid of Construction (AIAC)	2,324,396	-	-	-	-	2,324,396
40		Customer Deposits	11,374,431	-	-	-	-	11,374,431
41		Deferred Income Taxes	529,140	-	-	-	-	529,140
42		Deferred CAP Liability	-	-	-	-	1,075,643	1,075,643
43		<u>ADD:</u>						
44		Deferred CAP Charges	1,104,206	-	-	-	(28,563)	1,075,643
45		Deferred Tax Assets	-	-	-	-	-	-
46		<u>Original Cost Rate Base</u>	\$ 3,312,773	\$ -	\$ 10,136	\$ -	\$ (1,104,206)	\$ 2,218,704

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Schedule JMM-5

RATE BASE ADJUSTMENT NO. 1 - RETIRED PLANT

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED (Col A + Col B)
1	304	Structures and Improvements	\$ 399,328	\$ (5,182)	\$ 394,146
2	311	Electric Pumping Equipment	1,553,110	(33,913)	1,519,197
3	330	Distribution Reservoirs & Standpipe	1,621,069	(242,293)	1,378,776
4			<u>\$ 3,573,507</u>	<u>\$ (281,388)</u>	<u>\$ 3,292,119</u>
2					
3		Accumulated Depreciation	<u>\$ 3,722,176</u>	<u>\$ (281,388)</u>	<u>\$ 3,440,788</u>

References:

Column [A]: Company Application

Column [B]: Testimony JMM

Column [C]: Column [A] + Column [B]

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Schedule JMM-6

RATE BASE ADJUSTMENT NO. 2 - PLANT RETIRED TO THE WRONG ACCOUNT

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	311	Electric Pumping Equipment	\$ 1,553,110	\$ 1,838	\$ 1,554,948
2	330	Distribution Reservoirs & Standpipe	1,621,069	25,642	1,646,711
3	340	Office Furniture and Fixtures	29,683	(27,480)	2,203
4			<u>\$ 3,203,862</u>	<u>\$ -</u>	<u>\$ 3,203,862</u>
5		Accumulated Depreciation	<u>\$ 3,722,176</u>	<u>\$ (10,136)</u>	<u>\$ 3,712,040</u>

References:

Column [A]: Company Application
Column [B]: Testimony JMM
Column [C]: Column [A] + Column [B]

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Schedule JMM-7

RATE BASE ADJUSTMENT NO. 3 - EXCESS CAPACITY

LINE NO.	ACCT NO.	DESCRIPTION	[A]	[B]	[C]
			COMPANY AS FILED	STAFF ADJUSTMENTS	STAFF AS ADJUSTED
1	307	Wells and Springs	\$ 1,126,979	\$ (268,743)	\$ 858,236
2					
3		Accumulated Depreciation	\$ 3,722,176	\$ (268,743)	\$ 3,453,433
4					
5					
6					

References:

Column [A]: Company Application
Column [B]: Testimony JMM
Column [C]: Column [A] + Column [B]

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Schedule JMM-8

RATE BASE ADJUSTMENT NO. 4 - CAP Long-Term Storage Credits

LINE NO.	ACCT NO.	DESCRIPTION	[A]		[B]		[C]	
			Plant in Service Per Company		Adjustment to Long-Term Storage Credits		Plant in Service Per Staff (Col A + Col B)	
1		Deferred CAP Charges	\$	1,104,206	\$	(28,563)	\$	1,075,643
2								
3		Deferred CAP Liability	\$	-	\$	1,075,643	\$	1,075,643
4								

References:

Column [A]: Company Application
Column [B]: Testimony JMM
Column [C]: Column [A] + Column [B]

OPERATING INCOME STATEMENT - ADJUSTED TEST YEAR AND STAFF RECOMMENDED

LINE NO.	DESCRIPTION	[A] COMPANY ADJUSTED TEST YEAR AS FILED	[B] STAFF TEST YEAR ADJUSTMENTS	[C] STAFF TEST YEAR AS ADJUSTED	[D] STAFF PROPOSED CHANGES	[E] STAFF RECOMMENDED
1	<u>REVENUES:</u>					
2	Metered Water Sales	\$ 2,120,110	\$ -	\$ 2,120,110	\$ (142,823)	\$ 1,977,287
3	Water Sales-Unmetered	-	-	-	-	-
4	Other Water Revenue	214,637	-	214,637	-	214,637
5	Intentionally Left Blank	-	-	-	-	-
6	Total Operating Revenues	\$ 2,334,747	\$ -	\$ 2,334,747	\$ (142,823)	\$ 2,191,924
7						
8	<u>OPERATING EXPENSES:</u>					
9	Salaries and Wages	\$ 276,984	\$ -	\$ 276,984	\$ -	\$ 276,984
10	Employee Benefits	12,757	-	12,757	-	12,757
11	Purchased Water	199,817	47,911	247,728	-	247,728
12	Purchased Power	218,584	-	218,584	-	218,584
13	Chemicals	1,732	-	1,732	-	1,732
14	Materials and Supplies	14,372	-	14,372	-	14,372
15	Repairs and Maintenance	28,876	-	28,876	-	28,876
16	Office Supplies and Expense	73,301	-	73,301	-	73,301
17	Contractual Services - Engineering	6,270	-	6,270	-	6,270
18	Contractual Services - Accounting	10,473	-	10,473	-	10,473
19	Contractual Services - Legal	12,933	-	12,933	-	12,933
20	Contractual Services - Management Fees	211,138	-	211,138	-	211,138
21	Contractual Services - Other	15,976	-	15,976	-	15,976
22	Contractual Services - Water Testing	3,906	9,761	13,667	-	13,667
23	Rents - Building/Real Property	7,920	-	7,920	-	7,920
24	Rents - Equipment	8,314	-	8,314	-	8,314
25	Transportation Expenses	33,154	-	33,154	-	33,154
26	Insurance - Vehicle	5,111	-	5,111	-	5,111
27	Insurance - General Liability	32,130	-	32,130	-	32,130
28	Insurance - Worker's Comp	3,111	-	3,111	-	3,111
29	Regulatory Commission Expense	11,946	-	11,946	-	11,946
30	Regulatory Commission Expense - Rate Case	30,000	-	30,000	-	30,000
31	Bad Debt Expense	6,856	-	6,856	-	6,856
32	Miscellaneous Expense	11,424	(1,311)	10,113	-	10,113
33	Depreciation Expense	570,649	(40,418)	530,231	-	530,231
34	Taxes Other than Income	-	-	-	-	-
35	Property Taxes	103,681	0	103,681	(2,124)	101,557
36	Income Taxes	106,244	(14,283)	91,962	(32,154)	59,808
37	Interest on Customer Deposits	4,981	-	4,981	-	4,981
38	Total Operating Expenses	\$ 2,022,640	\$ 1,660	\$ 2,024,301	\$ (34,278)	\$ 1,990,023
39	Operating Income (Loss)	\$ 312,107	\$ (1,660)	\$ 310,446	\$ (108,545)	\$ 201,901

References:

Column (A): Company Schedule C-1
Column (B): Schedule JMM-10
Column (C): Column (A) + Column (B)
Column (D): Schedules JMM-1, and JMM-14
Column (E): Column (C) + Column (D)

SUMMARY OF OPERATING INCOME STATEMENT ADJUSTMENTS - TEST YEAR

LINE NO.	DESCRIPTION	[A] COMPANY AS FILED	[B] Purchased Water Expense ADJ #1	[C] Water Testing Expense ADJ #2	[D] Miscellaneous Expense ADJ #3	[E] Depreciation Expense ADJ #4	[F] Property Tax Expense ADJ #5	[G] Income Tax Expense ADJ #6	[H] STAFF ADJUSTED
1	REVENUES:								
2	Metered Water Sales	\$ 2,120,110	\$ -	-	-	\$ -	-	\$ -	2,120,110
3	Water Sales-Unmetered	-	-	-	-	-	-	-	-
4	Other Water Revenue	214,637	-	-	-	-	-	-	214,637
5	Intentionally Left Blank	-	-	-	-	-	-	-	-
6	Total Operating Revenues	\$ 2,334,747	\$ -	-	\$ -	\$ -	\$ -	\$ -	2,334,747
7									
8	OPERATING EXPENSES:								
9	Salaries and Wages	\$ 276,984	\$ -	-	\$ -	-	\$ -	-	276,984
10	Employee Benefits	12,757	-	-	-	-	-	-	12,757
11	Purchased Water	198,817	47,911	-	-	-	-	-	247,728
12	Purchased Power	218,584	-	-	-	-	-	-	218,584
13	Chemicals	1,732	-	-	-	-	-	-	1,732
14	Materials and Supplies	14,372	-	-	-	-	-	-	14,372
15	Repairs and Maintenance	28,876	-	-	-	-	-	-	28,876
16	Office Supplies and Expense	73,301	-	-	-	-	-	-	73,301
17	Contractual Services - Engineering	6,270	-	-	-	-	-	-	6,270
18	Contractual Services - Accounting	10,473	-	-	-	-	-	-	10,473
19	Contractual Services - Legal	12,933	-	-	-	-	-	-	12,933
20	Contractual Services - Management Fees	211,138	-	-	-	-	-	-	211,138
21	Contractual Services - Other	15,976	-	-	-	-	-	-	15,976
22	Contractual Services - Water Testing	3,906	-	9,761	-	-	-	-	13,667
23	Rents - Building/Real Property	7,920	-	-	-	-	-	-	7,920
24	Rents - Equipment	8,314	-	-	-	-	-	-	8,314
25	Transportation Expenses	33,154	-	-	-	-	-	-	33,154
26	Insurance - Vehicle	5,111	-	-	-	-	-	-	5,111
27	Insurance - General Liability	32,130	-	-	-	-	-	-	32,130
28	Insurance - Worker's Comp	3,111	-	-	-	-	-	-	3,111
29	Regulatory Commission Expense	11,946	-	-	-	-	-	-	11,946
30	Regulatory Commission Expense - Rate Case	30,000	-	-	-	-	-	-	30,000
31	Bad Debt Expense	6,856	-	-	-	-	-	-	6,856
32	Miscellaneous Expense	11,424	-	-	(1,311)	-	-	-	10,113
33	Depreciation Expense	570,649	-	-	(40,418)	-	-	-	530,231
34	Amortization of CIAC	-	-	-	-	-	-	-	-
35	Taxes Other than Income	-	-	-	-	-	0	-	-
36	Property Taxes	103,681	-	-	-	-	-	-	103,681
37	Income Taxes	106,244	-	-	-	-	-	-	91,962
38	Interest on Customer Deposits	4,981	-	-	-	-	-	(14,282)	4,981
39	Total Operating Expenses	\$ 2,022,640	\$ 47,911	\$ 9,761	\$ (1,311)	\$ (40,418)	\$ 0	\$ (14,282)	\$ 2,024,301
40	Operating Income (Loss)	\$ 312,107	\$ (47,911)	\$ (9,761)	\$ 1,311	\$ 40,418	\$ (0)	\$ 14,282	\$ 310,446

OPERATING ADJUSTMENT NO. 1 - PURCHASED WATER EXPENSE

Line No.	Description	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1	Purchased Water	\$ 199,817	\$ 47,911	\$ 247,728
Staff's Calculation to increase CAP M&I Charges				
	Future CAP Charge 1,857 (a.f.) x \$146 (average of five years 129 + 138 + 149 + 155 + 159)	\$ 271,122		
	Current CAP Charge 1,857 (a.f.) x \$122	\$ 226,554		
	Increase		\$ 44,568	
Staff's Calculation to increase CAP Capital Charges				
	Future CAP Charge 1,857 (a.f.) x \$16.80 (average of five years 15 + 16 + 17 + 18 + 18)	\$ 31,198		
	Current CAP Charge 1,857 (a.f.) x \$15	\$ 27,855		
	Increase		\$ 3,343	
	Total		\$ 47,911	

References:

Column [A]: Company Application

Column [B]: Testimony JMM

Column [C]: Column [A] + Column [B]

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Schedule JMM-12

OPERATING ADJUSTMENT NO. 2 - WATER TESTING EXPENSE

Line No.	Description	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1	Water Testing Fee	\$ 3,906	\$ 9,761	\$ 13,667

References:

Column [A]: Company Application

Column [B]: Testimony JMM

Column [C]: Column [A] + Column [B]

OPERATING ADJUSTMENT NO. 4 - MISCELLANEOUS EXPENSE

Line No.	Description	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1	Miscellaneous Expense	\$ 11,424	\$ (1,311)	\$ 10,113

References:

Column [A]: Company Application

Column [B]: Testimony JMM

Column [C]: Column [A] + Column [B]

OPERATING INCOME ADJUSTMENT NO. 4 - DEPRECIATION EXPENSE ON TEST YEAR PLANT

LINE NO.	ACCT NO.	DESCRIPTION	[A] PLANT In SERVICE Per Staff	[B] NonDepreciable or Fully Depreciated Plant	[C] DEPRECIABLE PLANT (Col A - Col B)	[D] DEPRECIATION RATE	[E] DEPRECIATION EXPENSE (Col C x Col D)
1	301	Organization Cost	\$ -	\$ -	\$ -	0.00%	\$ -
2	302	Franchise Cost	\$ -	\$ -	\$ -	0.00%	\$ -
3	303	Land and Land Rights	\$ 17,750	\$ 17,750	\$ -	0.00%	\$ -
4	304	Structures and Improvements	\$ 394,146	\$ -	\$ 394,146	3.33%	\$ 13,125
5	305	Collecting and Impounding Res.	\$ -	\$ -	\$ -	2.50%	\$ -
6	306	Lake River and Other Intakes	\$ -	\$ -	\$ -	2.50%	\$ -
7	307	Wells and Springs	\$ 858,236	\$ -	\$ 858,236	3.33%	\$ 28,579
8	308	Infiltration Galleries and Tunnels	\$ -	\$ -	\$ -	6.67%	\$ -
9	309	Supply Mains	\$ 2,995	\$ -	\$ 2,995	2.00%	\$ 60
10	310	Power Generation Equipment	\$ -	\$ -	\$ -	5.00%	\$ -
11	311	Electric Pumping Equipment	\$ 1,521,035	\$ -	\$ 1,521,035	12.50%	\$ 190,129
12	320	Water Treatment Equipment	\$ -	\$ -	\$ -	3.33%	\$ -
13	320	Water Treatment Plant	\$ -	\$ -	\$ -	20.00%	\$ -
14	330	Distribution Reservoirs & Standpipe	\$ 1,404,418	\$ -	\$ 1,404,418	2.22%	\$ 31,178
15	330.1	Storage Tanks	\$ -	\$ -	\$ -	2.22%	\$ -
16	330.2	Pressure Tanks	\$ -	\$ -	\$ -	5.00%	\$ -
17	331	Transmission and Distribution Mains	\$ 14,023,034	\$ -	\$ 14,023,034	2.00%	\$ 280,461
18	333	Services	\$ 12,451	\$ -	\$ 12,451	3.33%	\$ 415
19	334	Meters	\$ 923,082	\$ -	\$ 923,082	8.33%	\$ 76,893
20	335	Hydrants	\$ 492,908	\$ -	\$ 492,908	2.00%	\$ 9,858
21	336	Backflow Prevention Devices	\$ 7,901	\$ -	\$ 7,901	6.67%	\$ 527
22	339	Other Plant and Miscellaneous Equipment	\$ 6,553	\$ -	\$ 6,553	6.67%	\$ 437
23	340	Office Furniture and Fixtures	\$ 2,203	\$ -	\$ 2,203	6.67%	\$ 147
24	341	Transportation Equipment	\$ 15,621	\$ -	\$ 15,621	20.00%	\$ 3,124
25	342	Stores Equipment	\$ 54,807	\$ -	\$ 54,807	4.00%	\$ 2,192
26	343	Tools and Work Equipment	\$ 15,645	\$ -	\$ 15,645	5.00%	\$ 782
27	344	Laboratory Equipment	\$ -	\$ -	\$ -	10.00%	\$ -
28	345	Power Operated Equipment	\$ -	\$ -	\$ -	5.00%	\$ -
29	346	Communications Equipment	\$ 5,190	\$ -	\$ 5,190	10.00%	\$ 519
30	347	Miscellaneous Equipment	\$ -	\$ -	\$ -	10.00%	\$ -
31	348	Other Tangible Plant	\$ (149,395)	\$ -	\$ (149,395)	10.00%	\$ (14,940)
32		Total Plant	\$ 19,608,580	\$ 17,750	\$ 19,590,830		\$ 623,487

Composite Depreciation Rate: 3.18% See Note 2

CIAC: \$ 2,930,228 See Note 2

Amortization of CIAC (Line 35 x Line 34): \$ 93,256

Depreciation Expense Before Amortization of CIAC: \$ 623,487

Less Amortization of CIAC: \$ 93,256

Test Year Depreciation Expense - Staff: \$ 530,231

Depreciation Expense - Company: \$ 570,649

Staff's Total Adjustment: \$ (40,418)

References:

Column [A]: Schedule JMM-W4
Column [B]: From Column [A]
Column [C]: Column [A] - Column [B]
Column [D]: Engineering Staff Report
Column [E]: Column [C] x Column [D]

OPERATING INCOME ADJUSTMENT NO. 5 - PROPERTY TAX EXPENSE

LINE NO.	Property Tax Calculation	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Staff Adjusted Test Year Revenues	\$ 2,334,747	\$ 2,334,747
2	Weight Factor	2	2
3	Subtotal (Line 1 * Line 2)	4,669,494	\$ 4,669,494
4	Staff Recommended Revenue, Per Schedule JMM-1	2,334,747	\$ 2,191,925
5	Subtotal (Line 4 + Line 5)	7,004,241	6,861,419
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	2,334,747	\$ 2,287,140
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	4,669,494	\$ 4,574,280
10	Plus: 10% of CWIP -	-	-
11	Less: Net Book Value of Licensed Vehicles	22,449	\$ 22,449
12	Full Cash Value (Line 9 + Line 10 - Line 11)	4,647,045	\$ 4,551,830
13	Assessment Ratio	20.0%	20.0%
14	Assessment Value (Line 12 * Line 13)	929,409	\$ 910,366
15	Composite Property Tax Rate (Per Company Schedule)	11.1556%	11.1556%
16			\$ -
17	Staff Test Year Adjusted Property Tax (Line 14 * Line 15)	\$ 103,681	
18	Company Proposed Property Tax	103,681	
19			
20	Staff Test Year Adjustment (Line 17-Line 18)	\$ 0	
21	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		\$ 101,557
22	Staff Test Year Adjusted Property Tax Expense (Line 17)		\$ 103,681
23	Increase in Property Tax Expense Due to Increase in Revenue Requirement		\$ (2,124)
24			
25	Increase to Property Tax Expense		\$ (2,124)
26	Increase in Revenue Requirement		(142,822)
27	Increase to Property Tax per Dollar Increase in Revenue (Line 25/Line 26)		1.487411%

References:

Column [A]: Company Application
Column [B]: Testimony JMM
Column [C]: Column [A] + Column [B]

Vail Water Company
Docket No. W-01651B-12-0339
Test Year Ended: December 31, 2011

Schedule JMM-16

OPERATING INCOME ADJUSTMENT NO. 7 - COMMISSION TAX ALLOWANCE POLICY - TEST YEAR INCOME TAXE EXPENSE

LINE NO.	DESCRIPTION	[A]	[B]	[C]
		COMPANY PROPOSED	STAFF ADJUSTMENTS	STAFF RECOMMENDED
1	Income Tax Expense	\$ 106,244	\$ (14,282)	\$ 91,962

References:

Column (A), Company Schedule C-1
Column (B): Column [C] - Column [A]
Column (C): Schedule JMM-2

Monthly Usage Charge	Present	Company Proposed Rates	Staff Recommended Rates
<u>Meter Size (All Classes):</u>			
5/8 x 3/4 Inch	\$ 13.18	\$ 14.70	\$ 14.25
3/4 Inch	21.00	23.42	21.90
1 Inch	40.50	45.16	36.50
1 1/2 Inch	89.20	99.46	73.00
2 Inch	147.70	164.69	116.80
3 Inch	284.20	318.88	233.60
4 Inch	479.20	534.31	365.00
6 Inch	966.92	1,078.12	730.00
8 Inch	N/A	N/A	1,168.00
10 Inch	N/A	N/A	1,679.00
12 Inch	N/A	N/A	3,139.00
<u>Commodity Charge - Per 1,000 Gallons</u>			
<u>5/8" x 3/4" Meter (Residential)</u>			
All Gallons	\$ 4,0000	N/A	N/A
First 4,000 gallons	N/A	\$ 3,7500	N/A
4,001 to 10,000 gallons	N/A	4,0000	N/A
Over 10,000 gallons	N/A	4,2500	N/A
First 3,000 gallons	N/A	N/A	\$ 2,6500
3,001 to 10,000 gallons	N/A	N/A	3,7000
Over 10,000 gallons	N/A	N/A	4,8000
<u>5/8" x 3/4" Meter (Commercial, Industrial, Irrigation)</u>			
All Gallons	\$ 4,0000	N/A	N/A
First 10,000 gallons	N/A	3,7500	N/A
Over 10,000 gallons	N/A	4,0000	N/A
First 10,000 gallons	N/A	N/A	3,7000
Over 10,000 gallons	N/A	N/A	4,8000
<u>3/4" Meter (Residential)</u>			
All Gallons	4,0000	N/A	N/A
First 4,000 gallons	N/A	\$ 3,7500	N/A
4,001 to 10,000 gallons	N/A	4,0000	N/A
Over 10,000 gallons	N/A	4,2500	N/A
First 3,000 gallons	N/A	N/A	2,6500
3,001 to 10,000 gallons	N/A	N/A	3,7000
Over 10,000 gallons	N/A	N/A	4,8000
<u>3/4" Meter (Commercial, Industrial, Irrigation)</u>			
All Gallons	4,0000	N/A	N/A
First 10,000 gallons	N/A	3,7500	N/A
Over 10,000 gallons	N/A	4,0000	N/A
First 10,000 gallons	N/A	N/A	3,7000
Over 10,000 gallons	N/A	N/A	4,8000
<u>1" Meter (All Classes Including Standpipe and Construction)</u>			
All Gallons	4,0000	N/A	N/A
First 25,000 gallons	N/A	4,0000	N/A
Over 25,000 gallons	N/A	4,2500	N/A
First 22,000 gallons	N/A	N/A	3,7000
Over 22,000 gallons	N/A	N/A	4,8000
<u>1 1/2" Meter (All Classes Including Standpipe and Construction)</u>			
All Gallons	4,0000	N/A	N/A
First 50,000 gallons	N/A	4,0000	N/A
Over 50,000 gallons	N/A	4,2500	N/A
First 50,000 gallons	N/A	N/A	3,7000
Over 50,000 gallons	N/A	N/A	4,8000
<u>2" Meter (All Classes Including Standpipe and Construction)</u>			
All Gallons	4,0000	N/A	N/A
First 80,000 gallons	N/A	4,0000	N/A
Over 80,000 gallons	N/A	4,2500	N/A
First 80,000 gallons	N/A	N/A	3,7000
Over 80,000 gallons	N/A	N/A	4,8000
<u>3" Meter (All Classes Including Standpipe and Construction)</u>			
All Gallons	4,0000	N/A	N/A
First 160,000 gallons	N/A	4,0000	N/A
Over 160,000 gallons	N/A	4,2500	N/A
First 160,000 gallons	N/A	N/A	3,7000
Over 160,000 gallons	N/A	N/A	4,8000
<u>4" Meter (All Classes Including Standpipe and Construction)</u>			
All Gallons	4,0000	N/A	N/A
First 250,000 gallons	N/A	4,0000	N/A
Over 250,000 gallons	N/A	4,2500	N/A
First 250,000 gallons	N/A	N/A	3,7000
Over 250,000 gallons	N/A	N/A	4,8000
<u>6" Meter (All Classes Except Standpipe and Construction)</u>			
All Gallons	4,0000	N/A	N/A
First 500,000 gallons	N/A	4,0000	N/A
Over 500,000 gallons	N/A	4,2500	N/A
First 500,000 gallons	N/A	N/A	3,7000
Over 500,000 gallons	N/A	N/A	4,8000

8" Meter (All Classes Except Standpipe and Construction)				
All Gallons	4.0000	N/A		N/A
First 720,000 gallons	N/A	N/A		3.7000
Over 720,000 gallons	N/A	N/A		4.8000
10" Meter (All Classes Except Standpipe and Construction)				
All Gallons	4.0000	N/A		N/A
First 1,035,000 gallons	N/A	N/A		3.7000
Over 1,035,000 gallons	N/A	N/A		4.8000
12" Meter (All Classes Except Standpipe and Construction)				
All Gallons	4.0000	N/A		N/A
First 1,935,000 gallons	N/A	N/A		3.7000
Over 1,935,000 gallons	N/A	N/A		4.8000
Construction/Standpipe				
All Gallons	4.0000	4.2500		4.8000
CAP Recovery Surcharge (per 1,000 gallons)	0.3200	N/A		N/A
CAP Water Surcharge (per 1,000 gallons)	N/A	See Testimony		See Testimony

Other Service Charges

Establishment	\$ 25.00	\$ 25.00	\$ 25.00
Establishment (After Hours)	\$ 50.00	Remove from Tariff	Remove from Tariff
Reestablishment (within 12 months)	(a)	(a)	(a)
Reestablishment (within 12 months after hours)	(b)	Remove from Tariff	Remove from Tariff
Reconnection (Delinquent)	\$ 30.00	\$ 30.00	\$ 30.00
Reconnection (Delinquent) - After Hours	\$ 30.00	\$ 30.00	\$ 30.00
Meter Test (If Correct)	\$ 20.00	\$ 20.00	\$ 20.00
Deposit	(c)	(c)	(c)
Deposit Interest	(c)	(c)	(c)
NSF Check	\$ 25.00	\$ 25.00	\$ 25.00
Deferred Payment (per month)	1.5% per month	1.5% per month	1.5% per month
Late Payment Fee (per month)	1.5% per month	1.5% per month	1.5% per month
Moving Customer Meter (Customer Request)	At Cost	At Cost	At Cost
Illegal Hook-up	(d)	(d)	(d)
Transfer Fee	\$ 25.00	\$ 25.00	\$ 25.00
After Hour Service Charge (at customers request)	N/A	\$ 50.00	\$ 50.00

(a) Number of months off the system times the monthly minimum per A.A.C. R14-2-403(D).

(b) Number of months off the system times the monthly minimum per A.A.C.

(c) Per Rule R14-2-403(B).

(d) Estimated billings from the time illegal connection was made to date.

In addition to the collection of regular rates, the utility will collect from its customers a proportionate share of any privilege, sales, use, and franchise tax. Per commission rule 14-2-409D(5).

Service and Meter Installation Charges

Service Size	Total Present Charge	Proposed Service Line Charge	Proposed Meter Installation Charge	Total Proposed Charge	Recommended Service Line Charge	Recommended Meter Installation Charge	Total Recommended Charge
5/8 x 3/4 Inch	\$ 400.00	\$ 445.00	\$ 305.00	\$ 750.00	\$ 445.00	\$ 305.00	\$ 750.00
3/4 Inch	\$ 440.00	\$ 445.00	\$ 405.00	\$ 850.00	\$ 445.00	\$ 405.00	\$ 850.00
1 Inch	\$ 500.00	\$ 495.00	\$ 465.00	\$ 960.00	\$ 495.00	\$ 465.00	\$ 960.00
1 1/2 Inch	\$ 675.00	\$ 550.00	\$ 675.00	\$ 1,225.00	\$ 550.00	\$ 675.00	\$ 1,225.00
2 Inch Turbo	N/A	\$ 830.00	\$ 1,195.00	\$ 2,025.00	\$ 830.00	\$ 1,195.00	\$ 2,025.00
2 Inch Compound	\$ 1,660.00	\$ 830.00	\$ 2,040.00	\$ 2,870.00	\$ 830.00	\$ 2,040.00	\$ 2,870.00
3 Inch Turbo	N/A	\$ 1,045.00	\$ 1,820.00	\$ 2,865.00	\$ 1,045.00	\$ 1,820.00	\$ 2,865.00
3 Inch Compound	\$ 2,150.00	\$ 1,165.00	\$ 2,604.00	\$ 3,769.00	\$ 1,165.00	\$ 2,604.00	\$ 3,769.00
4 Inch Turbo	N/A	\$ 1,490.00	\$ 2,820.00	\$ 4,310.00	\$ 1,490.00	\$ 2,820.00	\$ 4,310.00
4 Inch Compound	\$ 3,135.00	\$ 1,670.00	\$ 3,795.00	\$ 5,465.00	\$ 1,670.00	\$ 3,795.00	\$ 5,465.00
6 Inch Turbo	N/A	\$ 2,210.00	\$ 5,175.00	\$ 7,385.00	\$ 2,210.00	\$ 5,175.00	\$ 7,385.00
6 Inch Compound	\$ 6,190.00	\$ 2,330.00	\$ 7,070.00	\$ 9,400.00	\$ 2,330.00	\$ 7,070.00	\$ 9,400.00

Typical Bill Analysis
General Service 5/8 x 3/4-Inch Meter

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	6,720	\$ 40.06	\$ 40.58	\$ 0.52	1.30%
Median Usage	5,500	35.18	35.70	\$ 0.52	1.48%
Staff Recommended					
Average Usage	6,720	\$ 40.06	\$ 35.96	\$ (4.10)	-10.22%
Median Usage	5,500	35.18	31.45	\$ (3.73)	-10.60%

Present & Proposed Rates (Without Taxes)
General Service 5/8 x 3/4-Inch Meter

Gallons Consumption	Present Rates	Company Proposed Rates	% Increase	Staff Recommended Rates	% Increase
-	\$ 13.18	\$ 14.70	11.53%	\$ 14.25	8.12%
1,000	17.18	18.45	7.39%	16.90	-1.63%
2,000	21.18	22.20	4.82%	19.55	-7.70%
3,000	25.18	25.95	3.06%	22.20	-11.83%
4,000	29.18	29.70	1.78%	25.90	-11.24%
5,000	33.18	33.70	1.57%	29.60	-10.79%
6,000	37.18	37.70	1.40%	33.30	-10.44%
7,000	41.18	41.70	1.26%	37.00	-10.15%
8,000	45.18	45.70	1.15%	40.70	-9.92%
9,000	49.18	49.70	1.06%	44.40	-9.72%
10,000	53.18	53.70	0.98%	48.10	-9.55%
11,000	57.18	57.95	1.35%	52.90	-7.49%
12,000	61.18	62.20	1.67%	57.70	-5.69%
13,000	65.18	66.45	1.95%	62.50	-4.11%
14,000	69.18	70.70	2.20%	67.30	-2.72%
15,000	73.18	74.95	2.42%	72.10	-1.48%
16,000	77.18	79.20	2.62%	76.90	-0.36%
17,000	81.18	83.45	2.80%	81.70	0.64%
18,000	85.18	87.70	2.96%	86.50	1.55%
19,000	89.18	91.95	3.11%	91.30	2.38%
20,000	93.18	96.20	3.24%	96.10	3.13%
25,000	113.18	117.45	3.77%	120.10	6.11%
30,000	133.18	138.70	4.14%	144.10	8.20%
35,000	153.18	159.95	4.42%	168.10	9.74%
40,000	173.18	181.20	4.63%	192.10	10.93%
45,000	193.18	202.45	4.80%	216.10	11.86%
50,000	213.18	223.70	4.93%	240.10	12.63%
75,000	313.18	329.95	5.35%	360.10	14.98%
100,000	413.18	436.20	5.57%	480.10	16.20%

Attachment A

Line No.	[A] Year	[B] AF	[C] Cost	[D] Per Unit Cost	Comments
1	2009				
2	BEG BALANCE	1,516.10	\$ -	\$ -	Expensed in prior years
3	PLUS:				
4	WATER ENTERING FACILITY	1,857.00	\$ 330,649.60	\$ 178.06	2009 GL 174-005
5	OTHER ACQUISITIONS				
6	PURCHASED LTSC	4,000.00	\$ 489,200.00	\$ 122.30	2009 GL 174-004
7					
8	Sub - Total	7,373.10	\$ 819,849.60	\$ 111.19	
9					
10	LESS:				
11	ANNUAL RECOVERY	1,124.00	\$ 124,982.84	\$ 111.19	Ground Water Pumped from Ground
12	LTSC RECOVERED	-	\$ -		
13	LTSC SOLD/LEASED (DLG)	227.00	\$ 25,241.20	\$ 111.19	LTSC sold to Delargo Golf Course
14	5% CUT TO AQUIFER	36.65			Line 4, Column B - Line 11, Column B X .05
15					
16	ENDING BALANCE	5,985.45	\$ 669,625.57	\$ 111.88	
17					
18					
19	2010				
20	BEG BALANCE	5,985.45	\$ 669,625.57	\$ 111.88	
21	PLUS:				
22	WATER ENTERING FACILITY	1,772.00	\$ 399,266.10	\$ 225.32	2010 GL 174-005
23	OTHER ACQUISITIONS	-	\$ -		
24	PURCHASED LTSC	-	\$ -		
25					
26	Sub - Total	7,757.45	\$ 1,068,891.67	\$ 137.79	
27					
28	LESS:				
29	ANNUAL RECOVERY	1,112.00	\$ 153,221.42	\$ 137.79	Ground Water Pumped from Ground
30	LTSC RECOVERED	-	\$ -		
31	LTSC SOLD/LEASED (DLG)	155.00	\$ 21,357.30	\$ 137.79	LTSC sold to Delargo Golf Course
32	5% CUT TO AQUIFER	33.00			Line 22, Column B - Line 29, Column B X .05
33					
34	ENDING BALANCE	6,457.45	\$ 894,312.94	\$ 138.49	
35					
36					
37	2011				
38	BEG BALANCE	6,457.45	\$ 894,312.94	\$ 138.49	
39	PLUS:				
40	WATER ENTERING FACILITY	1,857.00	\$ 397,654.10	\$ 214.14	2011 GL 174-005
41	OTHER ACQUISITIONS	-	\$ -		
42	PURCHASED LTSC	-	\$ -		
43					
44	Sub - Total	8,314.45	\$ 1,291,967.04	\$ 155.39	
45					
46	LESS:				
47	ANNUAL RECOVERY	1,164.00	\$ 180,871.81	\$ 155.39	Ground Water Pumped from Ground
48	LTSC RECOVERED				
49	LTSC SOLD/LEASED (DLG)	193.50	\$ 30,067.61	\$ 155.39	LTSC sold to Delargo Golf Course
50	5% CUT TO AQUIFER	34.65			Line 40, Column B - Line 49, Column B X .05
51					
52	ENDING BALANCE	6,922.30	\$ 1,075,643.42	\$ 155.39	Deferred Asset on Balance Sheet
53					
54					
55	AMORTIZATION				
56					
57	2009				
58	ANNUAL RECOVERY	1,124.00	\$ 124,982.84		Amounts Taken From Above
59	LTSC SOLD/LEASED (DLG)	227.00	\$ 25,241.20		
60	Total	1,351.00	\$ 150,224.03		
61					
62	2010				
63	ANNUAL RECOVERY	1,112.00	\$ 153,221.42		
64	LTSC SOLD/LEASED (DLG)	155.00	\$ 21,357.30		
65	Total	1,267.00	\$ 174,578.73		
66					
67	2011				
68	ANNUAL RECOVERY	1,164.00	\$ 180,871.81		
69	LTSC SOLD/LEASED (DLG)	193.50	\$ 30,067.61		
70	Total	1,357.50	\$ 210,939.42		
71					
72					
73					
74					

Attachment B

02/05/2013

Arizona Corporation Commission
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1010 N FINANCE CENTER DR #200

TUCSON, AZ 85710

Statutory Agent Information**Agent Name:** DAVID A MCEVOY**Agent Mailing/Physical Address:**

4560 E CAMP LOWELL DR

TUCSON, AZ 85712

Agent Status: APPOINTED 04/18/2002**Agent Last Updated:** 07/07/2004**Additional Corporate Information****Corporation Type:** PROFIT**Business Type:** UTILITIES**Incorporation Date:** 06/05/1959**Corporate Life Period:** PERPETUAL**Domicile:** ARIZONA**County:** PIMA**Approval Date:** 06/10/1959**Original Publish Date:** 07/24/1959**Officer Information**SHELDON J MANDELL
PRESIDENTHOWARD J MANDELL
SECRETARY

2441 N LEAVITT CHICAGO, IL 60647 Date of Taking Office: 04/30/1996 Last Updated: 06/02/2009	2441 N LEAVITT CHICAGO, IL 60647 Date of Taking Office: 01/31/2001 Last Updated: 08/15/2001
HOWARD J MANDELL TREASURER 2441 N LEAVITT CHICAGO, IL 60647 Date of Taking Office: 01/31/2001 Last Updated: 06/02/2009	PAUL MANDELL VICE-PRESIDENT 2441 N LEAVITT CHICAGO, IL 60647 Date of Taking Office: 01/06/2010 Last Updated: 07/02/2010
CHRISTOPHER T VOLPE VICE-PRESIDENT 1010 N FINANCE DENTER DR #200 TUCSON, AZ 85710 Date of Taking Office: 09/28/2001 Last Updated: 06/13/2008	

Director Information

CHRISTOPHER H SHEAFE DIRECTOR 4572 E FT LOWELL TUCSON, AZ 85712 Date of Taking Office: 01/06/2010 Last Updated: 07/02/2010	HOWARD J MANDELL DIRECTOR 2441 N LEAVITT CHICAGO, IL 60647 Date of Taking Office: 04/30/1996 Last Updated: 06/13/2008
SHELDON J MANDELL DIRECTOR 2441 N LEAVITT CHICAGO, IL 60647 Date of Taking Office: 04/30/1996 Last Updated: 06/13/2008	ROBERT C NEILL DIRECTOR 1010 N FINANCE DENTER DR #200 TUCSON, AZ 85710 Date of Taking Office: 04/30/1996 Last Updated: 06/13/2008

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2010	06	05/27/2010			
2009	06	05/01/2009			

2008	06	05/05/2008		
2007	06	06/28/2007		
2006	06	05/18/2006		
2005	06	04/07/2005		
2004	06	05/17/2004		
2003	06	04/21/2003		
2002	06	04/18/2002		
2001	06	04/12/2001		
2000	06	04/24/2000		
1999	06	03/31/1999		
1998	06	08/26/1998		
1996	12	05/08/1997		
1995	12	04/16/1996		10/15/1997
1994	12	04/14/1995		
1993	12	03/28/1994		
1992	12	04/01/1993		
1991	12	04/13/1992		
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-00220786	98 ANNUAL REPORT	08/26/1998
-00306221	99 ANNUAL REPORT	03/11/1999
00141944	00 ANNUAL REPORT	04/24/2000
00287485	01 ANNUAL REPORT	04/12/2001
00471095	02 ANNUAL REPORT	04/18/2002
00689435	03 ANNUAL REPORT	04/22/2003

00841386	CHANGE(S)	05/04/2004
00934463	04 ANNUAL REPORT	05/17/2004
01162942	05 ANNUAL REPORT	04/07/2005
01582917	06 ANNUAL REPORT	05/18/2006
02050724	07 ANNUAL REPORT	06/28/2007
02417701	08 ANNUAL REPORT	05/05/2008
02415176	08 ANNUAL REPORT	05/16/2008
02725210	09 ANNUAL REPORT	05/01/2009
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03487712	11 ANNUAL REPORT	05/17/2011
03896706	12 ANNUAL REPORT	05/14/2012

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Amendment Date	Amendment Type	Publish Date	Publish Exception
06/13/1997	NAME CHANGE	04/10/1998	
08/19/1985	AMENDMENT	09/30/1985	

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Name Changes / Mergers

Description	Corporation Name	Date
CHANGED FROM	DEL LAGO WATER COMPANY	06/13/1997

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10047027017	09/16/1983	83 ANNUAL REPORT
10082010043	03/01/1984	AMENDMENT
20015067027	03/28/1984	PUBLICATION OF AMENDMENT
20018016011	06/13/1984	PUBLICATION OF AMENDMENT
10116006026	09/17/1984	84 ANNUAL REPORT
20031019036	08/08/1985	AGENT ADDRESS CHANGE/CORP. ADDRESS CHANGE

10181012015	08/19/1985	AMENDMENT
10184007016	09/17/1985	85 ANNUAL REPORT
20033025001	09/30/1985	PUBLICATION OF AMENDMENT
20042023026	06/05/1986	AGENT APPOINTMENT/CORP. ADDRESS CHANGE
10248017035	08/18/1986	86 ANNUAL REPORT
10329003049	09/15/1987	87 ANNUAL REPORT
10066059015	10/19/1987	AMEND. FINANCIAL STATEMENT
10380007006	04/15/1988	12/87 ANNUAL REPORT
20071008047	05/25/1988	CORPORATION ADDRESS CHANGE
10463009018	04/17/1989	88 ANNUAL REPORT
10529008006	04/17/1990	89 ANNUAL REPORT
20106009046	10/22/1990	CORPORATION ADDRESS CHANGE
10601021040	04/08/1991	90 ANNUAL REPORT
10671008041	04/13/1992	91 ANNUAL REPORT
10752005024	04/01/1993	92 ANNUAL REPORT
10840007044	03/28/1994	93 ANNUAL REPORT
10958007047	04/14/1995	94 ANNUAL REPORT
11016011003	04/16/1996	95 ANNUAL REPORT
20193022039	06/26/1996	CORP ADDRESS CHG
11100030021	01/01/1997	AGENT APPOINTMENT
20209034012	04/15/1997	EXTENSION/FISCAL CHANGE
11145030002	05/08/1997	96 ANNUAL REPORT
11136007027	06/13/1997	AMENDMENT
20223050009	07/23/1997	PUB OF AMENDMENT
20224026038	04/10/1998	PUB OF AMENDMENT
31501001590	08/26/1998	98 ANNUAL REPORT
31533001966	03/11/1999	99 ANNUAL REPORT
31577000478	04/24/2000	00 ANNUAL REPORT
31614000308	04/12/2001	01 ANNUAL REPORT
31662000117	04/18/2002	02 ANNUAL REPORT
31720001692	04/22/2003	03 ANNUAL REPORT
11648025037	04/07/2004	04 ANNUAL REPORT/MAIL RETURNED
31798002740	05/04/2004	CORP ADDRESS CHG
31808001223	05/17/2004	04 ANNUAL REPORT
31867001415	04/07/2005	05 ANNUAL REPORT
31965002347	05/18/2006	06 ANNUAL REPORT
32070003226	06/28/2007	07 ANNUAL REPORT
22125002992		

	05/05/2008	08 ANNUAL REPORT
32137002288	05/16/2008	08 ANNUAL REPORT

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Jump To...[Annual Reports](#) [Scanned Documents](#) [Microfilm](#)[E-FILE An Annual Report Online << Click Here](#)[FORMS For Annual Reports To Be Printed And Mailed << Click Here](#)**Corporate Inquiry****File Number:** -0522072-9[Check Corporate Status](#)**Corp. Name:** TEM CORP.**Domestic Address**

1010 N FINANCE CENTER DR #200

TUCSON, AZ 85710

Statutory Agent Information**Agent Name:** DAVID A MCEVOY**Agent Mailing/Physical Address:**

4560 E CAMPLOWELL

TUCSON, AZ 85716

Agent Status: APPOINTED 08/25/1992**Agent Last Updated:** 05/26/2004**Additional Corporate Information****Corporation Type:** PROFIT**Business Type:** REAL ESTATE**Incorporation Date:** 10/24/1989**Corporate Life Period:** PERPETUAL**Domicile:** ARIZONA**County:** PIMA**Approval Date:** 10/25/1989**Original Publish Date:** 12/08/1989**Officer Information**LEAN A ESTES
OTHER OFFICERSHIRLEY A ESTES
PRESIDENT

1010 N FINANCE CENTER DR #200 TUCSON,AZ 85710 Date of Taking Office: 07/17/1992 Last Updated: 06/11/2008	1010 N FINANCE CENTER DR #200 TUCSON,AZ 85710 Date of Taking Office: 01/01/2009 Last Updated: 06/16/2010
CHRISTOPHER T VOLPE SECRETARY 1010 N FINANCE CENTER DR #200 TUCSON,AZ 85710 Date of Taking Office: 07/07/1992 Last Updated: 05/02/2011	CHRISTOPHER T VOLPE TREASURER 1010 N FINANCE CENTER DR #200 TUCSON,AZ 85710 Date of Taking Office: 07/07/1992 Last Updated: 05/02/2011
WILLIAM A ESTES III VICE-PRESIDENT 1010 N FINANCE CENTER DR #200 TUCSON,AZ 85710 Date of Taking Office: 01/01/2010 Last Updated: 06/16/2010	CHRITOPHER T VOLPE VICE-PRESIDENT 1010 N FINANCE CENTER DR #200 TUCSON,AZ 85710 Date of Taking Office: 07/07/1992 Last Updated: 04/24/2009

Director Information

WILLIAM A ESTES III DIRECTOR 1010 N FINANCE CENTER DR #200 TUCSON,AZ 85710 Date of Taking Office: 01/01/2010 Last Updated: 05/02/2011	SHIRLEY A ESTES DIRECTOR 1010 N FINANCE CENTER DR #200 TUCSON,AZ 85710 Date of Taking Office: 12/31/1989 Last Updated: 06/11/2008
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Next Annual Report Due: 05/24/2013	E-FILE An Annual Report Online << Click Here
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File Year	File Month	Date Received	Reason Returned	Date Returned	Extension
2012	05	05/18/2012			
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2010	05	03/24/2011			
2009	05	03/27/2009			
2008	05	04/30/2008			
2007	05	08/10/2007			
2006	05	05/18/2006			
2005	05	03/23/2005			
2004	05	03/31/2004			

2003	05	03/11/2003			
2002	05	03/12/2002			
2001	05	03/26/2001			
2000	05	03/16/2000			
1999	05	06/11/1999			
1998	05	07/01/1998			
1996	12	10/27/1997			
1995	12	10/15/1996			10/15/1997
1994	12	06/15/1995			10/15/1996
1993	12	06/15/1994			06/15/1995
1992	12	04/14/1993			06/15/1994
1991	12	06/15/1992			
1990	12	06/17/1991			06/15/1992
1989	12	06/15/1990			06/15/1991

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-00043939	95 ANNUAL REPORT	10/15/1996
-00134246	96 ANNUAL REPORT	10/27/1997
-00196180	98 ANNUAL REPORT	07/01/1998
-00311885	99 ANNUAL REPORT	06/11/1999
00116933	00 ANNUAL REPORT	03/16/2000
00276432	01 ANNUAL REPORT	03/26/2001
00457683	02 ANNUAL REPORT	03/12/2002
00662102	03 ANNUAL REPORT	03/11/2003
00891319	04 ANNUAL REPORT	03/31/2004
00841264	OFFICER/DIRECTOR CHANGE	04/07/2004
01151837	05 ANNUAL REPORT	03/23/2005
01582915	06 ANNUAL REPORT	05/18/2006
02109653	07 ANNUAL REPORT	08/10/2007
02402234	08 ANNUAL REPORT	04/30/2008

02725093	09 ANNUAL REPORT	03/27/2009
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03432267	11 ANNUAL REPORT	03/24/2011
03904146	12 ANNUAL REPORT	05/18/2012

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10492013032	10/24/1989	ARTICLES
20094016034	12/08/1989	PUBLICATION OF ARTICLES
20099071018	04/13/1990	89 EXTENSION
10550030041	06/15/1990	89 ANNUAL REPORT
20112031030	04/12/1991	90 EXTENSION
10627027004	06/17/1991	90 ANNUAL REPORT
20126045042	04/15/1992	91 EXTENSION
10699024038	06/15/1992	91 ANNUAL REPORT
10705012015	08/25/1992	AGENT APPOINTMENT
10714011022	09/11/1992	GLOBAL CHANGE
10762010002	04/14/1993	92 ANNUAL REPORT
20155014010	04/18/1994	93 EXTENSION
10853012027	06/15/1994	93 ANNUAL REPORT
20170074014	04/17/1995	94 EXTENSION
10946007031	06/15/1995	94 ANNUAL REPORT
20188024029	04/15/1996	95 EXTENSION
31753002004	10/15/1996	95 ANNUAL REPORT
11068028044	10/29/1996	95 ANNUAL REPORT
20209034044	04/15/1997	EXTENSION/FISCAL CHANGE
11172008042	10/07/1997	96 ANNUAL REPORT
31763000803	07/01/1998	98 ANNUAL REPORT
31537000461	06/11/1999	99 ANNUAL REPORT
31571000788	03/16/2000	00 ANNUAL REPORT
31612000280	03/26/2001	01 ANNUAL REPORT
31656000696	03/12/2002	02 ANNUAL REPORT
31713000730	03/11/2003	03 ANNUAL REPORT
31800000984	03/31/2004	04 ANNUAL REPORT

31794002802	04/07/2004	OFFICER/DIRECTOR CHANGE
31862001330	03/23/2005	05 ANNUAL REPORT
31965002342	05/18/2006	06 ANNUAL REPORT
32076001239	08/10/2007	07 ANNUAL REPORT
32133002059	04/30/2008	08 ANNUAL REPORT

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Jump To...[Scanned Documents](#) [Amendments](#) [Microfilm](#)**Corporate Inquiry****File Number:** L-1078814-5**Check Corporate Status****Corp. Name:** ESTES DEVELOPMENT CO., L.L.C.**Domestic Address**

1010 N FINANCE CENTER DR #200

TUCSON, AZ 85710

Statutory Agent Information**Agent Name:** DAVID A MCEVOY**Agent Mailing/Physical Address:**

4560 E CAMP LOWELL DR

TUCSON, AZ 85712

Agent Status: APPOINTED 05/23/2003**Agent Last Updated:** 06/08/2004**Additional Corporate Information****Corporation Type:** DOMESTIC L.L.C.**Business Type:****Incorporation Date:** 05/23/2003**Corporate Life Period:** PERPETUAL**Domicile:** ARIZONA**County:** PIMA**Approval Date:** 05/23/2003**Original Publish Date:** 06/24/2003**Manager/Member Information**

WILLIAM A ESTES III

MEMBER

1010 N FINANCE CTR DR #200

TUCSON, AZ 85710

Date of Taking Office: 05/23/2003**Last Updated:** 05/19/2004

CHRISTOPHER T VOLPE

MEMBER

1010 N FINANCE CTR DR #200

TUCSON, AZ 85710

Date of Taking Office: 05/23/2003**Last Updated:** 05/19/2004

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Document Number	Description	Date Received
00841402	CHANGE(S)	05/05/2004
00956170	AGENT ADDRESS CHANGE	06/03/2004

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05/05/2004	AMENDMENT		WAIVE

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11596007031	05/23/2003	ARTICLES OF ORGANIZATION
20321023012	06/24/2003	PUBLICATION OF ARTICLES OF ORGANIZATION
11661005016	05/05/2004	AMENDMENT
31798002843	05/05/2004	CORP ADDRESS CHG
31802002983	06/03/2004	AGENT ADDRESS CHANGE
11716009044	05/26/2005	AMENDMENT

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Jump To...[Scanned Documents](#) [Amendments](#) [Microfilm](#)**Corporate Inquiry****File Number:** L-0775770-0 **LATEST DATE TO DISSOLVE**
12/31/2030[Check Corporate Status](#)**Corp. Name:** VAIL VALLEY ASSOCIATES L.L.C.**Domestic Address**

5780 N SWAN RD #100

TUCSON, AZ 85718

Statutory Agent Information**Agent Name:** DAVID A MCEVOY**Agent Mailing/Physical Address:**

4560 E CAMP LOWELL DR

TUCSON, AZ 85712

Agent Status: APPOINTED 04/29/1996**Agent Last Updated:** 06/16/2004**Additional Corporate Information****Corporation Type:** DOMESTIC L.L.C.**Business Type:** UNKNOWN**Incorporation Date:** 04/29/1996**Corporate Life Period:****Domicile:** ARIZONA**County:** PIMA**Approval Date:** 04/30/1996**Original Publish Date:** 06/03/1996**Status:** LATEST DATE TO DISSOLVE**Dissolution/Withdrawal Date:** 12/31/2030**Manager/Member Information**CHRISTOPHER H SHEAFE
MANAGER
4572 E CAMP LOWELL
TUCSON, AZ 85712ROBERT C NEILL
MANAGER
11078 E SKINNER DR
SCOTTSDALE, AZ 85262

Date of Taking Office: 03/06/2007 Last Updated: 03/08/2007	Date of Taking Office: 03/06/2007 Last Updated: 03/08/2007
WILLIAM A ESTES JR MANAGER 1010 N FINANCE CENTER DR #200 TUCSON, AZ 85710 Date of Taking Office: 04/29/1996 Last Updated: 03/08/2007	THE BSE TRUST MEMBER WILLIAM A JR&SHIRLEY A ESTES T % THE ESTES CO. 1010 N FINANCE CENTER DR #200 TUCSON, AZ 85710 Date of Taking Office: 12/11/2007 Last Updated: 12/13/2007
THE SHEAFE LIVING TRUST MEMBER CHRISTOPHER H&SHARON K SHEAFE TRUSTEES 4572 E CAMP LOWELL TUCSON, AZ 85712 Date of Taking Office: 12/11/2007 Last Updated: 12/13/2007	ROBERT & MARY NEILL FALY TRUST MEMBER ROBERT C AND MARY V NEILL TRUSTEES 11078 E SKINNER DR SCOTTSDALE, AZ 85262 Date of Taking Office: 12/11/2007 Last Updated: 12/13/2007

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00956346	AGENT ADDRESS CHANGE	06/03/2004
02189818	AMENDMENT	12/11/2007

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03/06/2007	AMENDMENT		WAIVE

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11033030034	04/29/1996	ARTICLES OF ORGANIZATION
20185052014	06/03/1996	PUBLICATION OF ARTICLES OF ORGANIZATION

31804002701	06/03/2004	AGENT ADDRESS CHANGE
11776009021	03/06/2007	AMENDMENT
32103003426	12/11/2007	AMENDMENT

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2441 N LEAVITT ST

CHICAGO, IL 60647

Foreign Address

1010 N FINANCE CENTER DR #200

TUCSON, AZ 85710

Statutory Agent Information**Agent Name:** CORPORATION SERVICE COMPANY**Agent Mailing/Physical Address:**

2338 W ROYAL PALM RD STE J

PHOENIX, AZ 85021

Agent Status: APPOINTED 07/31/2009**Agent Last Updated:** 08/05/2009**Additional Corporate Information****Corporation Type:** BUSINESS**Business Type:** REAL ESTATE**Incorporation Date:** 04/10/1996**Corporate Life Period:** PERPETUAL**Domicile:** ILLINOIS**County:** PIMA

Approval Date: 04/10/1996**Original Publish Date:** 04/29/1996**Officer Information**

SHELDON J MANDELL PRESIDENT 2441 N LEAVITT ST CHICAGO, IL 60647 Date of Taking Office: 04/02/1996 Last Updated: 01/28/2013	HOWARD J MANDELL SECRETARY 2441 N LEAVITT ST CHICAGO, IL 60647 Date of Taking Office: 04/02/1996 Last Updated: 01/28/2013
ARTHUR N MANDELL VICE-PRESIDENT 2441 N LEAVITT ST CHICAGO, IL 60647 Date of Taking Office: 08/01/2001 Last Updated: 01/28/2013	

Director Information

ARTHUR N MANDELL DIRECTOR 2441 N LEAVITT ST CHICAGO, IL 60647 Date of Taking Office: 04/02/2001 Last Updated: 01/28/2013	ALLEN E MANDELL DIRECTOR 2441 N LEAVITT ST CHICAGO, IL 60647 Date of Taking Office: 04/02/1996 Last Updated: 01/28/2013
HOWARD J MANDELL DIRECTOR 2441 N LEAVITT ST CHICAGO, IL 60647 Date of Taking Office: 04/02/1996 Last Updated: 01/28/2013	SHELDON J MANDELL DIRECTOR 2441 N LEAVITT ST CHICAGO, IL 60647 Date of Taking Office: 04/02/1996 Last Updated: 01/28/2013

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2012	01	12/27/2011			
2011	01	05/02/2011			
2010	01	12/21/2009			

2009	01	11/18/2008			
2008	01	12/28/2007			
2007	01	12/26/2006			
2006	01	01/04/2006			
2005	01	12/28/2004			
2004	01	01/02/2004			
2003	01	03/24/2003			
2002	01	12/26/2001			
2001	01	11/27/2000			
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1999	01	11/16/1998			
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1996	12	05/27/1997			

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-00089795	96 ANNUAL REPORT	05/27/1997
-00211356	98 ANNUAL REPORT	08/05/1998
-00279042	99 ANNUAL REPORT	11/16/1998
00094235	00 ANNUAL REPORT	12/27/1999
00232338	01 ANNUAL REPORT	11/27/2000
00377865	02 ANNUAL REPORT	12/26/2001
00673977	03 ANNUAL REPORT	03/24/2003
00838597	04 ANNUAL REPORT	01/02/2004
01088924	05 ANNUAL REPORT	12/28/2004
01440675	06 ANNUAL REPORT	01/04/2006
01636745	AGENT ADDRESS CHANGE	05/26/2006
01841538	07 ANNUAL REPORT	12/26/2006
02264491	08 ANNUAL REPORT	12/28/2007
02623427	09 ANNUAL REPORT	11/18/2008
02856025	AGENT APPOINTMENT	07/31/2009

02999060	10 ANNUAL REPORT	12/21/2009
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11015018002	04/10/1996	APPLICATION FOR AUTHORITY
20186037030	04/29/1996	PUB OF APPL FOR AUTHORITY
11133012046	03/25/1997	96 ANNUAL REPORT
11260017025	12/05/1997	98 ANNUAL REPORT
31523002168	11/16/1998	99 ANNUAL REPORT
31560002545	12/27/1999	00 ANNUAL REPORT
31599002694	11/27/2000	01 ANNUAL REPORT
31646000024	12/26/2001	02 ANNUAL REPORT
31715002131	03/24/2003	03 ANNUAL REPORT
31782001169	01/02/2004	04 ANNUAL REPORT
31844000783	12/28/2004	05 ANNUAL REPORT
31946000948	01/04/2006	06 ANNUAL REPORT
31975003341	05/26/2006	AGENT ADDRESS CHANGE
32024002554	12/26/2006	07 ANNUAL REPORT
32099002163	12/28/2007	08 ANNUAL REPORT
32175001339	11/18/2008	09 ANNUAL REPORT

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Arizona Corporation Commission
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Jump To...[Scanned Documents](#) [Amendments](#) [Microfilm](#)**Corporate Inquiry****File Number:** L-0856439-3[Check Corporate Status](#)**Corp. Name:** DEL LAGO GOLF LLC**Domestic Address**

13801 E COLOSSAL CAVE RD

VAIL, AZ 85641

Statutory Agent Information**Agent Name:** TEM CORP**Agent Mailing/Physical Address:**

1010 N FINANCE CENTER DR #200

TUCSON, AZ 85710

Agent Status: APPOINTED 12/04/2001**Agent Last Updated:** 03/15/2005**Additional Corporate Information****Corporation Type:** DOMESTIC L.L.C.**Business Type:****Incorporation Date:** 11/04/1998**Corporate Life Period:** PERPETUAL**Domicile:** ARIZONA**County:** PIMA**Approval Date:** 11/04/1998**Original Publish Date:** 11/23/1998**Manager/Member Information**MDC ARIZONA CORP
MANAGER2441 N LEAVITT
CHICAGO, IL 60647**Date of Taking Office:** 11/04/1998**Last Updated:** 11/05/1998THE ESTES CO
MEMBER1010 N FINANCE CENTER DR #200
TUCSON, AZ 85710**Date of Taking Office:** 06/17/2008**Last Updated:** 06/19/2008

THE ESTES LIVING TRUST
 MEMBER
 WILLIAM ESTES (TRUSTEE)
 % TEM CORP
 5151 E BROADWAY #200
 TUCSON, AZ 85711
Date of Taking Office: 02/16/2000
Last Updated: 05/26/2005

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01050790	MULTIPLE CHANGES	01/28/2005
02454196	AMENDMENT	06/17/2008

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07/28/2004	AMENDMENT		WAIVE
01/08/2003	AMENDMENT		WAIVE
02/16/2000	AMENDMENT		WAIVE

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11284019014	11/04/1998	ARTICLES OF ORGANIZATION
20234041019	11/23/1998	PUBLICATION OF ARTICLES OF ORGANIZATION
11402022005	02/16/2000	AMENDMENT
20297045023	12/04/2001	AGENT APPOINTMENT/CORP ADDR CHG
11578002029	01/08/2003	AMENDMENT
11693002014	07/28/2004	AMENDMENT
11716009030	01/14/2005	AMENDMENT

31849003013	01/28/2005	MULTIPLE CHANGES
32135001554	06/17/2008	AMENDMENT

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Attachment C

TEM CORP.

Asset Managers for RCP Investments

November 12, 1996

Paul Mandell
National Wrecking Co.
2441 N. Leavitt
Chicago, Illinois 60647

Dear Paul:

It is our mutual understanding that TEM Corp. will be engaged by Del Lago Water Company, commencing October 1, 1996, to manage its operations pursuant to the terms of its proposal dated October 10, 1996 except for the length of the agreement shall be 6 months.

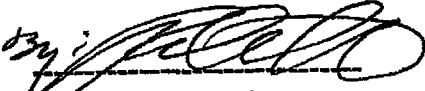
If you concur with the above, please sign below as an acknowledgment of such.

Sincerely,



Christopher T. Volpe
Treasurer

DEL LAGO WATER COMPANY

by: 
Signature Secretary

11/25/96
Date

Vail Water Company
1010 North Finance Center Dr., Suite 200
Tucson, Arizona 85710
520-571-1958
Facsimile - 520-571-1981

December 31, 2011

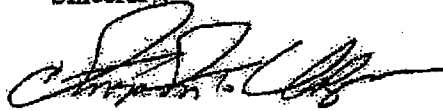
Mr. Sheldon J. Mandell
National Wrecking
2441 North Leavitt Street
Chicago, Illinois 60647

Re: Vail Water Company

Dear Red:

This letter shall constitute Vail Water Company's approval to extend the Management Agreement between TEM Corp. and Vail Water Company through December 31, 2012, for an amount equal to \$8.50 per paying customer per month. Except as modified hereby, all other terms and conditions of the proposal dated October 10, 1996, shall remain the same.

Sincerely,



Christopher T. Volpe
Vice President

CTV:ly

ACKNOWLEDGED AND APPROVED effective the 31st day of December, 2011.

VAIL WATER COMPANY, an
Arizona corporation

By: 
Sheldon J. Mandell, President

PROPOSAL TO
DEL LAGO WATER COMPANY
OCTOBER 10, 1996

TEM Corp.
P.O. Box 17360
Tucson, Arizona 85731
(502) 577-7007

October 10, 1996

Del Lago Water Company
P.O. Box 17360
Tucson, Arizona 85731

Re: Proposal to provide management services for Del Lago Water Company

Gentlemen:

TEM Corp. is pleased to submit this proposal to provide management services for Del Lago Water Company.

Staff personnel will be controller and staff, project manager, legal assistant and the support services of the computer, payroll and insurance departments. This proposal is based upon the continued employment by Del Lago Water Company of Charlotte Kimball and Bill McGuire.

SCOPE OF WORK:

Accounts Receivable/Accounts Payable/Vendor Transactions

1. Verify and cut checks for payment of vendor invoices
2. Update Accounts Payable ledger
3. Disburse payments
4. Maintain paid invoices file
5. Update Job Costing files

Bookkeeping/Payroll

1. Reconcile bank statements
2. Summarize A/R, A/P to General Ledger
3. Generate monthly Income Reports and Balance Sheets
4. Process and maintain all corporate tax reports (ADOR and ACC)
5. General Ledger maintenance
6. Continuing property records
8. Depreciation of plant assets (record-keeping)

9. Job Cost file maintenance
10. ACC reports as necessary
11. Capital Expenditure detail
12. Payroll records and filings
13. Employee compensation and benefits records
14. Staffing recommendations
15. Assist independant CPA firm in preparation and processing of federal and state income tax returns

General Administration

1. Analyze insurance needs and recommend optimal insurance coverage
2. Provide management direction to field services activities.
3. Develop and implement policies as necessary and approved by owners.
4. Attend Utility Coordination Committee meetings as necessary.
5. Review plans and specifications for compliance with utility requirements.
6. Preparation and submission of reports as required by the Arizona Department of Water Resources, Arizona Corporation Commission, Arizona Department of Environmental Quality, Central Arizona Project, State Health Department.
7. Make recommendations relative to rate increase timing and processing; assist in application to ACC for rate increase.
8. Meet with developers regarding line extensions and related matters.
9. Manage, coordinate and engage as necessary, outside consultant activities relative to engineering, accounting and tax return preparation and legal services.
10. Represent Del Lago Water Company at court proceedings relative to past due accounts as necessary.
11. Maintain corporate files.
12. Document preparation, filing and storage as required.
13. Meet with homeowner's associations and other customer groups as requested.
14. Other tasks of a routine nature necessary to the operation of the Del Lago Water Company.
15. Supervision of on-site personnel of Del Lago Water Company.
16. Make capital improvement recommendations for office and field personnel.
17. Provide use of mainframe and personal computers for billing, accounts/payable and accounting services.

OTHER SERVICES:

1. Negotiate Line Extension Agreements.
2. Coordinate rate increase applications and processing with attorney.
3. Maintain Line Extension Agreements and payout schedule.
4. Research and recommendation on expansion of CC&N area

5. Management and implementation of tariff.

FEES:

TEM Corp. shall receive a management fee of Five Dollars (\$5.00) per customer per month which fee shall be paid at the end of each month.

TERMS AND CONDITIONS:

1. The length of this agreement shall be for 1 years. The agreement may be renewed in one year increments at the mutual agreement of the parties.
2. Del Lago Water Company will agree to operate the system in full compliance with the current EPA and ADEQ regulations and will cooperate with TEM Corp. in maintaining such compliance.
3. The continued employment of Charlotte Kimball and Bill McGuire by Del Lago Water Company.

Reasons TEM Corp. managing the Del Lago Water Company is the better alternative to hiring an outside management company:

- **Vail Valley Joint Venture lowers its operating costs.** Currently all of Doug's, Kip's, Gloria's, and Lisa's time are billed to VVJV. With the acceptance of this proposal, any time spent on DLWCO would not be included in the TEM cost reimbursements paid by VVJV. For instance, Kip's time may drop from 15% to 5%, Doug's from 85% to 80%, Gloria's from 20% to 10% and so on. Additionally, if further staffing is needed for TEM to complete its duties, VVJV would not be burdened with a budget increase.
- **Mandell position is enhanced in VVJV.** The Mandell group owns 60% of VVJV and 50% of DLWCO; hence, every dollar saved at the VVJV level is more valuable to them than a dollar spent on DLWCO.
- **On-site management has additional benefits.** All of the management companies solicited to operate DLWCO indicated they would replace Bill and Charlotte and conduct business from their corporate offices off-site. This action would eliminate many inherent benefits of having the DLWCO office on-site, such as: better customer service; quicker reaction time to problems; avoidance of potential problems because of daily monitoring; having a night watchman with Charlotte living on property; personnel who care and, in TEM's case, have a vested interest in the overall success of the project; knowledge of the history of the project and idea of what to do when problems arise; giving a constant presence in the community for Owners, an important role that could come into play in negotiations with the various political bodies. Bill and Charlotte are known in Vail and serve as a resource to the pulse of the community. Conversely, vacating the premises is not the kind of message the Owners want to send. TEM is working with Charlotte & Bill to make the operations more professional. The offices have been cleaned and new carpet installed (at no cost to the venture), the door will have its window replaced (there currently is no glass), and the junk around the yard is being disposed.
- **TEM brings more to the table than outside management company.** Development experience, understanding of project goals, computer, technical, and administrative support, response time are among the advantages. Buck Lewis, the most logical alternative to TEM, has shown poor response time and needed continual prodding to complete work assignments. There is no reason to think that the DLWCO job would be any different.
- **TEM fee is passed on to customers.** While the rate base is based on the physical plant, the rate charged to customers includes overhead. For instance, if your physical plant is worth \$1,000,000 and your overhead is \$75,000 per year, you are allowed to earn an 8% profit on the physical plant plus recoup your overhead. In this case fees should be \$155,000. DLWCO has exposure from the Corporation Commission if costs, passed on to its customers, are not expended. Ramifications may include lowering the rate. Our goal is to get as large an increase as possible at the next rate hearing, again this results in a win for the Owners. If a larger fee to TEM is justifiable, perhaps additional benefit could

be passed on to VVJV through further cost reductions.

- **Bill Estes is emotionally involved.** TEM has gone beyond its contemplated duties to make DLWCO a more professional and efficient operation because of Bill's attachment to it. TEM has incurred costs, that were not reimbursable under the approved budget without hesitation or soliciting a budgetary increase before proceeding, in the spirit of problem solving and for the good of the company. These costs include computer technical support and the under taking of reviewing billing software packages when no other operator was interested in bidding on the job. DLWCO avoided a crisis situation (not to mention cost savings) only with help of TEM's computer manager. TEM also has used and continues to use non-reimbursable personnel for payroll, administrative, file maintenance, and financial statement preparation on behalf of DLWCO. This use of TEM resources cannot continue without remuneration.
- **TEM offers the best price for the best product.** It is doubtful DLWCO could find an operator to perform the functions that TEM can for a lower fee. Besides the benefits aforementioned, TEM offers the best price. If an another operator was chosen, TEM would still have to be involved in decision making, administration, and other day-to-day duties. This cost would inevitably end up being the burden of VVJV; thus, effectively double costing the project.

Attachment D

The Estes Co
Management Costs - Vail Water

Salaries	Annual \$\$	VWC Allocation Annually	% VWC
V.P. Treasurer - TEM	\$ 130,009	\$ 45,503	35.00% Based upon amount of time spent on VWC matters
Asst. Controller - TEM	\$ 50,000	\$ 17,500	35.00% Based upon amount of time spent on VWC matters
Accounting/Legal Assistant - TEM	\$ 50,000	\$ 12,500	25.00% Based upon amount of time spent on VWC matters
Admin Assistant - TEM	\$ 42,698	\$ 10,675	25.00% Based upon amount of time spent on VWC matters
Total Salaries	\$ 272,707	\$ 86,178	32.00%
ER payroll taxes-7.65%	\$ 20,862	\$ 7,302	35.00% Based upon amount of time spent on VWC matters
Benefits (medical, life)			
V.P. Treasurer - TEM	\$ 11,305	\$ 3,957	35.00% Based upon amount of time spent on VWC matters
Asst. Controller - TEM	\$ 3,319	\$ 1,162	35.00% Based upon amount of time spent on VWC matters
Accounting/Legal Assistant - TEM	\$ 10,664	\$ 2,666	25.00% Based upon amount of time spent on VWC matters
Admin Assistant - TEM	\$ 3,235	\$ 809	25.00% Based upon amount of time spent on VWC matters
Total Benefits	\$ 28,523	\$ 8,593	
Sunburst Pension	\$ 705	\$ 226	32.00% Indirect - Based upon % of Total Wages Allocated
BASIC - Flex Spending	\$ 189	\$ 60	32.00% Indirect - Based upon % of Total Wages Allocated
Worker's Comp insurance	\$ 2,672	\$ 855	32.00% Indirect - Based upon % of Total Wages Allocated
Bldg Rent (\$2,499.48/mo)	\$ 29,994	\$ 9,598	32.00% Indirect - Based upon % of Total Wages Allocated
Simply Bits (phone/internet)	\$ 5,776	\$ 1,848	32.00% Indirect - Based upon % of Total Wages Allocated
Kip cell phone	\$ 1,753	\$ 561	32.00% Indirect - Based upon % of Total Wages Allocated
Copier,fax,scanner (\$525/mo)	\$ 6,300	\$ 2,016	32.00% Indirect - Based upon % of Total Wages Allocated
Copier-overages (\$292/qtr avg)	\$ 1,168	\$ 374	32.00% Indirect - Based upon % of Total Wages Allocated
Copier-personal prop taxes	\$ 216	\$ 69	32.00% Indirect - Based upon % of Total Wages Allocated
Liability Insurance	\$ 3,539	\$ 1,133	32.00% Indirect - Based upon % of Total Wages Allocated
Postage-Stamps.com (VWC specific)	\$ 416	\$ 416	100.00% Direct
Postage-Stamps.com (monthly fee)	\$ 192	\$ 61	32.00% Indirect - Based upon % of Total Wages Allocated
Software purchased	\$ 4,040	\$ 1,293	32.00% Indirect - Based upon % of Total Wages Allocated
Computer hardware	\$ 4,334	\$ 1,387	32.00% Indirect - Based upon % of Total Wages Allocated
Computer maintenance	\$ 6,389	\$ 2,044	32.00% Indirect - Based upon % of Total Wages Allocated
Storage-offsite (VWC specific)	\$ 618	\$ 618	100.00% Direct
Mileage (to VWC & Banks) VWC specific	\$ 1,032	\$ 1,032	100.00% Direct
Travel/Meals for meetings (VWC specific)	\$ 478	\$ 478	100.00% Direct
Office supplies	\$ 1,472	\$ 471	32.00% Indirect - Based upon % of Total Wages Allocated
Total Office costs	\$ 393,373	\$ 24,541	
Total Cost Allocated to VWC Annually		\$ 126,613	

12/31/11 #customers	3,867	\$ 10,551	monthly costs
	per	\$ 2.73	cost per customer
	bill count		
	at year end		

Attachment E

CAP Water Line from Tucson Water to Vail Water

2013

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Wheeling Agreement											
Meetings with Tucson Water											
Mayor and Council Approval											
			Planning	Engineering	Right-A-Way Acquisition			Permits	Prepare Bid Contracts	Out to Bid	
			368,000.00	\$368,000.00	includes contingency				\$5,000.00 from VWC	\$5,000.00	
									5000	5000	
										Bid	
										Documents	
										Meeting	
										with	
										Contractors	

BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP

Chairman

GARY PIERCE

Commissioner

BRENDA BURNS

Commissioner

BOB BURNS

Commissioner

SUSAN BITTER SMITH

Commissioner

IN THE MATTER OF THE APPLICATION OF)
VAIL WATER COMPANY FOR A)
DETERMINATION OF THE FAIR VALUE OF)
ITS UTILITY PLANT AND PROPERTY AND)
FOR AN INCREASE IN ITS RATES AND)
CHARGES BASED THEREON.)
_____)

DOCKET NO. W-01651B-12-0339

DIRECT

TESTIMONY

OF

JOHN A. CASSIDY

PUBLIC UTILITIES ANALYST

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

FEBRUARY 25, 2013

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Staff Correction to Bourassa Schedule TJB D-4.8	JAC-B

**EXECUTIVE SUMMARY
VAIL WATER COMPANY
DOCKET NO. W-01651B-12-0339**

The Direct Testimony of Staff witness John A. Cassidy addresses the following issues:

Capital Structure – Staff recommends that the Commission adopt a capital structure for Vail Water Company (“Company”) for this proceeding consisting of 0.0 percent debt and 100.00 percent equity.

Cost of Equity – Staff recommends that the Commission adopt a 9.1 percent return on equity (“ROE”) for the Company. Staff’s estimated ROE for the Company is based on the 8.5 percent average of its discounted cash flow method (“DCF”) and capital asset pricing model (“CAPM”) cost of equity methodology estimates for the sample companies of 8.8 percent for the DCF and 8.2 percent for the CAPM. Staff’s recommended ROE includes an upward economic assessment adjustment of 60 basis points.

Cost of Debt – Staff recommends that the Commission adopt a 0.0 percent cost of debt for the Company, as Vail Water has no debt in its capital structure.

Overall Rate of Return – Staff recommends that the Commission adopt a 9.1 percent overall rate of return.

Mr. Bourassa’s Testimony – The Commission should reject the Company’s proposed 10.4 percent ROE for the following reasons:

Mr. Bourassa’s Future Growth DCF estimates rely exclusively on analysts’ forecasts of earnings per share growth. For purposes of calculating the current dividend yield (D_0/P_0) component, Mr. Bourassa states that he uses a spot price date of July 10, 2012. However, a check of market trading prices for July 10, 2012 reveals that he has understated the current market (P_0) price for all but one of his sample companies. An understatement to the current market (P_0) price serves to overstate the current dividend yield (D_0/P_0), which in turn artificially inflates both the expected dividend yield (D_1/P_0) and estimated cost of equity (k) derived from Mr. Bourassa’s Future Growth DCF and Future and Historical Growth DCF models. Mr. Bourassa has overstated the market risk premium ($R_m - R_f$) in his Current Market Risk Premium CAPM, and his CAPM estimates are inflated due to use of a forecasted risk-free rate.

I. INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is John A. Cassidy. I am a Public Utilities Analyst employed by the Arizona Corporation Commission ("Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

Q. Briefly describe your responsibilities as a Public Utilities Analyst.

A. I am responsible for the examination of financial and statistical information included in utility rate applications and other financial matters, including studies to estimate the cost of capital component in rate filings used to determine the overall revenue requirement, and for preparing written reports, testimonies and schedules to present Staff's recommendations to the Commission on these matters.

Q. Please describe your educational background and professional experience.

A. I hold a Bachelor of Arts degree in History from Arizona State University, a Master of Library Science degree from the University of Arizona, and an MBA degree with an emphasis in Finance from Arizona State University. While pursuing my MBA degree, I was inducted into Beta Gamma Sigma, the National Business Honor Society. I have passed the CPA exam, but opted not to pursue certification. I have worked professionally as a librarian, financial consultant, tax auditor, and, as a former Commission employee, served as Staff's cost of capital witness in rate case evidentiary proceedings.

Q. What is the scope of your testimony in this case?

A. My testimony provides Staff's recommended capital structure, return on equity ("ROE") and overall rate of return ("ROR") for establishing the revenue requirements for Vail Water Company's ("Vail" or "Company") pending rate application.

Summary of Testimony and Recommendations

Q. Briefly summarize how Staff's cost of capital testimony is organized.

A. Staff's Cost of Capital Testimony is presented in eleven sections. Section I is this Introduction. Section II discusses the concept of weighted average cost of capital ("WACC"). Section III presents the concept of capital structure and presents Staff's recommended capital structure for Vail in this proceeding. Section IV presents Staff's cost of debt for Vail. Section V discusses the concepts of ROE and risk. Section VI presents the methods employed by Staff to estimate Vail's ROE. Section VII presents the findings of Staff's ROE analysis. Section VIII presents Staff's final cost of equity estimates for Vail. Section IX presents Staff's ROR recommendation. Section X presents Staff's comments on the Direct Testimony of the Company's witness, Mr. Thomas J. Bourassa. Finally, Section XI presents the conclusions.

Q. Have you prepared any exhibits to accompany your testimony?

A. Yes. I prepared nine schedules (JAC-1 to JAC-9) and two Exhibits (JAC-A and JAC-B) that support Staff's cost of capital analysis.

Q. What is Staff's recommended rate of return for Vail?

A. Staff recommends a 9.1 percent overall ROR, as shown in Schedule JAC-1. Staff's ROR recommendation is based on cost of equity estimates for the sample companies of 8.8 percent for the discounted cash flow method ("DCF") and 8.2 percent from the capital asset pricing method ("CAPM"). Staff recommends adoption of a 60 basis point upward Economic Assessment Adjustment, resulting in a 9.1 percent return on equity.

Vail Water's Proposed Overall Rate of Return

Q. Briefly summarize Vail's proposed capital structure, cost of debt, ROE and overall ROR for this proceeding.

A. Table 1 summarizes the Company's proposed capital structure, cost of debt, ROE and overall ROR in this proceeding:

Table 1

	Weight	Cost	Weighted Cost
Long-term Debt	0.0%	0.0%	0.0%
Common Equity	100.0%	10.4%	10.4%
Cost of Capital/ROR			10.4%

Vail is proposing an overall rate of return of 10.4 percent.

II. THE WEIGHTED AVERAGE COST OF CAPITAL

Q. Briefly explain the cost of capital concept.

A. The cost of capital is the opportunity cost of choosing one investment over others with equivalent risk. In other words, the cost of capital is the return that stakeholders expect for investing their financial resources in a determined business venture over another business venture.

Q. What is the overall cost of capital?

A. The cost of capital to a company issuing a variety of securities (i.e., stock and indebtedness) is an average of the cost rates on all issued securities adjusted to reflect the relative amounts for each security in the company's entire capital structure. Thus, the overall cost of capital is the WACC.

1 **Q. How is the WACC calculated?**

2 A. The WACC is calculated by adding the weighted expected returns of a firm's securities.
3 The WACC formula is:

4 Equation 1.

5
$$\text{WACC} = \sum_{i=1}^n W_i * r_i$$

6
7

8 In this equation, W_i is the weight given to the i^{th} security (the proportion of the i^{th} security
9 relative to the portfolio) and r_i is the expected return on the i^{th} security.
10

11 **Q. Can you provide an example demonstrating application of Equation 1?**

12 A. Yes. For this example, assume that an entity has a capital structure composed of 60
13 percent debt and 40 percent equity. Also, assume that the embedded cost of debt is 6.0
14 percent and the expected return on equity, i.e., the cost of equity, is 10.5 percent.
15 Calculation of the WACC is as follows:

16
$$\text{WACC} = (60\% * 6.0\%) + (40\% * 10.5\%)$$

17
$$\text{WACC} = 3.60\% + 4.20\%$$

18
$$\text{WACC} = 7.80\%$$

19

20 The weighted average cost of capital in this example is 7.80 percent. The entity in this
21 example would need to earn an overall rate of return of 7.80 percent to cover its cost of
22 capital.
23

III. CAPITAL STRUCTURE

Background

Q. Please explain the capital structure concept.

A. The capital structure of a firm is the relative proportions of each type of security:--short-term debt, long-term debt (including capital leases), preferred stock and common stock--that are used to finance the firm's assets.

Q. How is the capital structure expressed?

A. The capital structure of a company is expressed as the percentage of each component of the capital structure (capital leases, short-term debt, long-term debt, preferred stock and common stock) relative to the entire capital structure.

As an example, the capital structure for an entity that is financed by \$20,000 of short-term debt, \$85,000 of long-term debt (including capital leases), \$15,000 of preferred stock and \$80,000 of common stock is shown in Table 2.

Table 2

Component			%
Short-Term Debt	\$20,000	(\$20,000/\$200,000)	10.0%
Long-Term Debt	\$85,000	(\$85,000/\$200,000)	42.5%
Preferred Stock	\$15,000	(\$15,000/\$200,000)	7.5%
Common Stock	\$80,000	(\$80,000/\$200,000)	40.0%
Total	\$200,000		100%

The capital structure in this example is composed of 10.0 percent short-term debt, 42.5 percent long-term debt, 7.5 percent preferred stock and 40.0 percent common stock.

Vail Water's Capital Structure

Q. What capital structure does Vail propose?

A. The Company proposes a capital structure composed of 0.0 percent debt and 100.0 percent common equity.

Q. How does Vail's capital structure compare to capital structures of publicly-traded water utilities?

A. Schedule JAC-4 shows the capital structures of six publicly-traded water companies ("sample water companies" or "sample water utilities") as of December 2011. The average capital structure for the sample water utilities is comprised of approximately 51.6 percent debt and 48.4 percent equity.

Staff's Capital Structure

Q. What is Staff's recommended capital structure for Vail?

A. Staff recommends a capital structure composed of 0.0 percent debt and 100.0 percent equity. Staff's recommended capital structure reflects the Company's actual capital structure as of the December 31, 2011, test year end.

IV. COST OF DEBT

Q. What is the basis for the Company's proposed 0.0 percent cost of debt?

A. As noted above, the Company has no debt in its capital structure; therefore, it has a cost of debt of 0.0 percent.

V. RETURN ON EQUITY

Background

Q. Please define the term “cost of equity capital.”

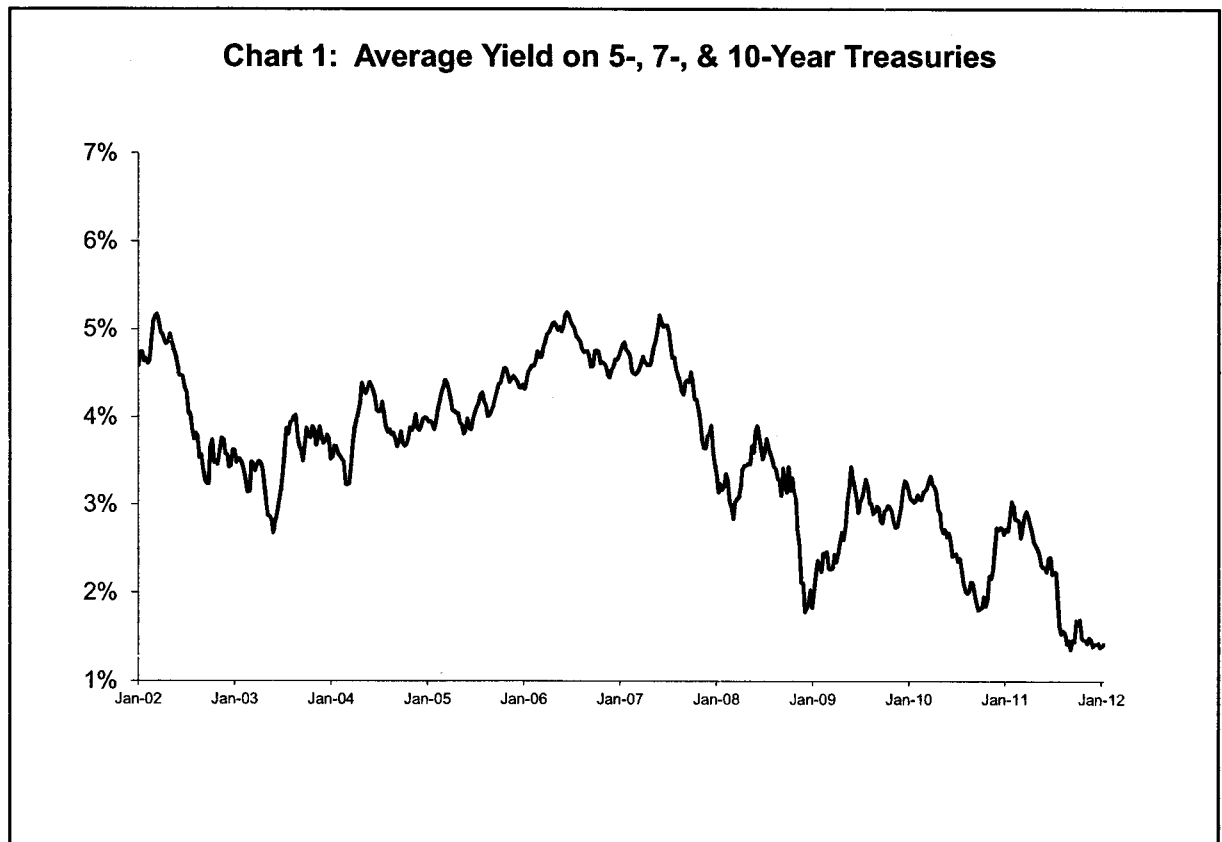
A. The cost of equity is the rate of return that investors expect to earn on their investment in a business entity given its risk. In other words, the cost of equity to the entity is the investors’ expected rate of return on other investments of similar risk. As investors have a wide selection of stocks to choose from, they will choose stocks with similar risks but higher returns. Therefore, the market determines the entity’s cost of equity.

Q. Is there a correlation between interest rates and the cost of equity?

A. Yes, there is a positive correlation between interest rates and the cost of equity, as the two tend to move in the same direction. This relationship is reflected in the CAPM formula. The CAPM is a market-based model employed by Staff for estimating the cost of equity. The CAPM is further discussed in Section VI of this testimony.

Q. What has been the general trend of interest rates in recent years?

A. A chronological chart of interest rates is a good tool to show interest rate history and identify trends. Chart 1 graphs intermediate U.S. treasury rates from January 18, 2002, to January 27, 2012.



16 Chart 1 shows that intermediate-term interest rates trended downward from 2002 to mid-
17 2003, trended upward through mid-2007, trended downward through late-2008, trended
18 upward through early-2010, trended downward through late 2010, trended upward to
19 early-2011, and are currently trending down from the existing, relatively low rates.

20
21 **Q. What has been the general trend in interest rates longer term?**

22 A. U.S. Treasury rates from December 1961 - December 2011 are shown in Chart 2. The
23 chart shows that interest rates trended upward through the early-1980s and have trended
24 downward over the last 30 years.

25
26



Source: Federal Reserve

13
14
15 **Q. Do these trends suggest anything in terms of cost of equity?**

16 A. Yes. As previously noted, interest rates and cost of equity tend to move in the same
17 direction; therefore, the cost of equity has generally declined in the past 30 years.

18
19 **Q. Do actual returns represent the cost of equity?**

20 A. No. The cost of equity represents investors' *expected* returns and not realized returns.

21
22 **Q. Is there any information available that leads to an understanding of the relationship**
23 **between the equity returns required for a regulated water utility and those required**
24 **in the market as a whole?**

25 A. Yes. A comparison of betas, a component of the CAPM discussed in Section VI, for the
26 water utility industry and the market provide insight into this relationship. In theory, the

1 market has a beta value of 1.0, with stocks bearing greater risk (less risk) than the market
2 having beta values higher than (lower than) 1.0, respectively. Furthermore, in accordance
3 with the CAPM, the cost of equity capital moves in the same direction as beta. Therefore,
4 because the average beta value (0.71)¹ for a water utility is less than 1.0, the required
5 return on equity for a regulated water utility is below that of the market as a whole.
6

7 *Risk*

8 **Q. Please define risk in relation to cost of capital.**

9 A. Risk, as it relates to an investment, is the variability or uncertainty of the returns on a
10 particular security. Investors are risk averse and require a greater potential return to invest
11 in relatively greater risk opportunities, i.e., investors require compensation for taking on
12 additional risk. Risk is generally separated into two components. Those components are
13 market risk (systematic risk) and non-market risk (diversifiable risk or firm-specific risk).
14

15 **Q. What is market risk?**

16 A. Market risk or systematic risk is the risk of an investment that cannot be reduced through
17 diversification. Market risk stems from factors that affect all securities, such as
18 recessions, war, inflation and high interest rates. Since these factors affect the entire
19 market they cannot be eliminated through diversification. Market risk does not impact
20 each security to the same degree. The degree to which a given security's return is affected
21 by market fluctuations can be measured using Beta. Beta reflects the business risk and the
22 financial risk of a security.
23

¹ See Schedule JAC-7.

1 **Q. Please define business risk.**

2 A. Business risk is the fluctuation of earnings inherent in a firm's operations and
3 environment, such as competition and adverse economic conditions that may impair its
4 ability to provide returns on investment. Companies in the same or similar line of
5 business tend to experience the same fluctuations in business cycles.

6
7 **Q. Please define financial risk.**

8 A. Financial risk is the fluctuation of earnings, inherent in the use of debt financing, that may
9 impair a firm's ability to provide adequate return; the higher the percentage of debt in a
10 company's capital structure, the greater its exposure to financial risk.

11
12 **Q. Do business risk and financial risk affect the cost of equity?**

13 A. Yes.

14
15 **Q. Is a firm subject to any other risk?**

16 A. Yes. Firms are also subject to unsystematic or firm-specific risk. Examples of
17 unsystematic risk include losses caused by labor problems, nationalization of assets, loss
18 of a big client or weather conditions. Investors can eliminate firm-specific risk by holding
19 a diverse portfolio; thus, it is not of concern to diversified investors.

20
21 **Q. How does Vail's financial risk exposure compare to that of Staff's sample group of**
22 **water companies?**

23 A. JAC-4 shows the capital structures of the six sample water companies as of December 31,
24 2011, and Vail's adjusted capital structure as of the December 31, 2011 test year end. As
25 shown, the sample water utilities were capitalized with approximately 51.6 percent debt
26 and 48.4 percent equity, while Vail's capital structure consists of 0.0 percent debt and

1 100.0 percent equity. Thus, unlike Staff's sample companies, Vail has no debt in its
2 capital structure and, accordingly, has no exposure to financial risk.

3
4 **Q. Is firm-specific risk measured by beta?**

5 A. No. Firm-specific risk is not measured by beta.

6
7 **Q. Is the cost of equity affected by firm-specific risk?**

8 A. No. Since firm-specific risk can be eliminated through diversification, it does not affect
9 the cost of equity.

10
11 **Q. Can investors expect additional returns for firm-specific risk?**

12 A. No. Investors who hold diversified portfolios can eliminate firm-specific risk and,
13 consequently, do not require any additional return. Since investors who choose to be less
14 than fully-diversified must compete in the market with fully-diversified investors, the
15 former cannot expect to be compensated for unique risk.

16
17 **VI. ESTIMATING THE COST OF EQUITY**

18 *Introduction*

19 **Q. Did Staff directly estimate the cost of equity for Vail?**

20 A. No. Since Vail is not a publicly-traded company, Staff is unable to directly estimate its
21 cost of equity due to the lack of firm-specific market data. Instead, Staff estimated the
22 Company's cost of equity indirectly, using a representative sample group of publicly
23 traded water utilities as a proxy, taking the average of the sample group to reduce the
24 sample error resulting from random fluctuations in the market at the time the information
25 is gathered.

26

1 **Q. What companies did Staff select as proxies or comparables for Vail?**

2 A. Staff's sample consists of the following six publicly-traded water utilities: American
3 States Water, California Water, Connecticut Water Services, Middlesex Water, Aqua
4 America and SJW Corp. Staff chose these companies because they are publicly-traded
5 and receive the majority of their earnings from regulated operations.
6

7 **Q. What models did Staff implement to estimate Vail's cost of equity?**

8 A. Staff used two market-based models to estimate the cost of equity for Vail: the DCF
9 model and the CAPM.
10

11 **Q. Please explain why Staff chose the DCF and CAPM models.**

12 A. Staff chose to use the DCF and CAPM models because they are widely-recognized
13 market-based models and have been used extensively to estimate the cost of equity. An
14 explanation of the DCF and CAPM models follows.
15

16 *Discounted Cash Flow Model Analysis*

17 **Q. Please provide a brief summary of the theory upon which the DCF method of**
18 **estimating the cost of equity is based.**

19 A. The DCF method of stock valuation is based on the theory that the value of an investment
20 is equal to the sum of the future cash flows generated from the aforementioned investment
21 discounted to the present time. This method uses expected dividends, market price and
22 dividend growth rate to calculate the cost of capital. Professor Myron Gordon pioneered
23 the DCF method in the 1960s. The DCF method has become widely used to estimate the
24 cost of equity for public utilities due to its theoretical merit and its simplicity. Staff used
25 the financial information for the relevant six sample companies in the DCF model and
26 averaged the results to determine an estimated cost of equity for the sample companies.

1 **Q. Does Staff use more than one version of the DCF?**

2 A. Yes. Staff uses two versions of the DCF model: the constant-growth DCF and the multi-
3 stage or non-constant growth DCF. The constant-growth DCF assumes that an entity's
4 dividends will grow indefinitely at the same rate. The multi-stage growth DCF model
5 assumes the dividend growth rate will change at some point in the future.

6
7 The Constant-Growth DCF

8 **Q. What is the mathematical formula used in Staff's constant-growth DCF analysis?**

9 A. The constant-growth DCF formula used in Staff's analysis is:
10

Equation 2 :

$$K = \frac{D_1}{P_0} + g$$

where : K = the cost of equity
 D_1 = the expected annual dividend
 P_0 = the current stock price
 g = the expected infinite annual growth rate of dividends

11
12 Equation 2 assumes that the entity has a constant earnings retention rate and that its
13 earnings are expected to grow at a constant rate. According to Equation 2, a stock with a
14 current market price of \$10 per share, an expected annual dividend of \$0.45 per share and
15 an expected dividend growth rate of 3.0 percent per year has a cost of equity to the entity
16 of 7.5 percent reflected by the sum of the dividend yield ($\$0.45 / \$10 = 4.5$ percent) and the
17 3.0 percent annual dividend growth rate.
18

1 **Q. How did Staff calculate the expected dividend yield (D_1/P_0) component of the**
2 **constant-growth DCF formula?**

3 A. Staff calculated the expected yield component of the DCF formula by dividing the
4 expected annual dividend (D_1) by the spot stock price (P_0) after the close of market on
5 January 23, 2013, as reported by *MSN Money*.
6

7 **Q. Why did Staff use the January 23, 2013, spot price rather than a historical average**
8 **stock price to calculate the dividend yield component of the DCF formula?**

9 A. The current, rather than historic, market price is used in order to be consistent with
10 financial theory. In accordance with the Efficient Market Hypothesis, the current stock
11 price is reflective of all available information on a stock, and as such reveals investors'
12 expectations of future returns. Use of historical average stock prices illogically discounts
13 the most recent information in favor of less recent information. The latter is stale and is
14 representative of underlying conditions that may have changed.
15

16 **Q. How did Staff estimate the dividend growth (g) component of the constant-growth**
17 **DCF model represented by Equation 2?**

18 A. The dividend growth component used by Staff is determined by the average of six
19 different estimation methods, as shown in Schedule JAC-8. Staff calculated historical and
20 projected growth estimates on dividend-per-share ("DPS"),² earnings-per-share ("EPS")³
21 and sustainable growth bases.
22

² Derived from information provided by *Value Line*.

³ Derived from information provided by *Value Line*.

1 **Q. Why did Staff examine EPS growth to estimate the dividend growth component of**
2 **the constant-growth DCF model?**

3 A. Historic and projected EPS growth are used because dividends are related to earnings.
4 Dividend distributions may exceed earnings in the short run, but cannot continue
5 indefinitely. In the long term, dividend distributions are dependent on earnings.
6

7 **Q. How did Staff estimate historical DPS growth?**

8 A. Staff estimated historical DPS growth by calculating a compound annual DPS growth rate
9 for each of its sample companies over the 10-year period, 2002-2011. As shown in
10 Schedule JAC-5, the average historical DPS growth rate for the sample was 3.4 percent.
11

12 **Q. How did Staff estimate projected DPS growth?**

13 A. Staff calculated an average of the projected DPS growth rates for the sample water utilities
14 from *Value Line* through the period, 2015-2017. The average projected DPS growth rate
15 is 3.7 percent, as shown in Schedule JAC-5.
16

17 **Q. How did Staff estimate historical EPS growth rate?**

18 A. Staff estimated historical EPS growth by calculating a compound annual EPS growth rate
19 for each of its sample companies over the 10-year period, 2002-2011. As shown in
20 Schedule JAC-5, the average historical EPS growth rate for the sample was 4.2 percent.
21

22 **Q. How did Staff estimate projected EPS growth?**

23 A. Staff calculated an average of the projected EPS growth rates for the sample water utilities
24 from *Value Line* through the period, 2015-2017. The average projected EPS growth rate
25 is 7.0 percent, as shown in Schedule JAC-5.
26

1 **Q. How does Staff calculate its historical and projected sustainable growth rates?**

2 A. Historical and projected sustainable growth rates are calculated by adding their respective
3 retention growth rate terms (br) to their respective stock financing growth rate terms (vs),
4 as shown in Schedule JAC-6.

5
6 **Q. What is retention growth?**

7 A. Retention growth is the growth in dividends due to the retention of earnings. The
8 retention growth concept is based on the theory that dividend growth cannot be achieved
9 unless the company retains and reinvests some of its earnings. The retention growth is
10 used in Staff's calculation of sustainable growth shown in Schedule JAC-6.

11
12 **Q. What is the formula for the retention growth rate?**

13 A. The retention growth rate is the product of the retention ratio and the book/accounting
14 return on equity. The retention growth rate formula is:

15 Equation 3 :

$$\text{Retention Growth Rate} = br$$

where : b = the retention ratio (1 – dividend payout ratio)

r = the accounting/book return on common equity

16
17 **Q. How did Staff calculate the average historical retention growth rate (br) for the**
18 **sample water utilities?**

19 A. Staff calculated the mean of the 10-year average historical retention rate for each sample
20 company over the period, 2002-2011. As shown in Schedule JAC-6, the historical
21 average retention (br) growth rate for the sample is 2.9 percent.

22

1 **Q. How did Staff estimate its projected retention growth rate (br) for the sample water**
2 **utilities?**

3 A. Staff used the retention growth projections for the sample water utilities for the period,
4 2015-2017, from *Value Line*. As shown in Schedule JAC-6, the projected average
5 retention growth rate for the sample companies is 4.3 percent.

6
7 **Q. When can retention growth provide a reasonable estimate of future dividend**
8 **growth?**

9 A. The retention growth rate is a reasonable estimate of future dividend growth when the
10 retention ratio is reasonably constant and the entity's market price to book value ("market-
11 to-book ratio") is expected to be 1.0. The average retention ratio has been reasonably
12 constant in recent years. However, the market-to-book ratio for the sample water utilities
13 is 2.1, notably higher than 1.0, as shown in Schedule JAC-7.

14
15 **Q. Is there any financial implication of a market-to-book ratio greater than 1.0?**

16 A. Yes. A market-to-book ratio greater than 1.0 implies that investors expect an entity to
17 earn an accounting/book return on its equity that exceeds its cost of equity. The
18 relationship between required returns and expected cash flows is readily observed in the
19 fixed securities market. For example, assume an entity contemplating issuance of bonds
20 with a face value of \$10 million at either 6 percent or 8 percent and, thus, paying annual
21 interest of \$600,000 or \$800,000, respectively. Regardless of investors' required return on
22 similar bonds, investors will be willing to pay more for the bonds if issued at 8 percent
23 than if the bonds are issued at 6 percent. For example, if the current interest rate required
24 by investors is 6 percent, then they would bid \$10 million for the 6 percent bonds and
25 more than \$10 million for the 8 percent bonds. Similarly, if equity investors require a 9
26 percent return and expect an entity to earn accounting/book returns of 13 percent, the

1 market will bid up the price of the entity's stock to provide the required return of 9
2 percent.

3
4 **Q. How has Staff generally recognized a market-to-book ratio exceeding 1.0 in its cost of**
5 **equity analyses in recent years?**

6 A. Staff has assumed that investors expect the market-to-book ratio to remain greater than
7 1.0. Given that assumption, Staff has added a stock financing growth rate (vs) term to the
8 retention ratio (br) term to calculate its historical and projected sustainable growth rates.

9
10 **Q. Do the historical and projected sustainable growth rates Staff uses to develop its**
11 **DCF cost of equity in this case continue to include a stock financing growth rate**
12 **term?**

13 A. Yes.

14
15 **Q. What is stock financing growth?**

16 A. Stock financing growth is the growth in an entity's dividends due to the sale of stock by
17 that entity. Stock financing growth is a concept derived by Myron Gordon and discussed
18 in his book *The Cost of Capital to a Public Utility*.⁴ Stock financing growth is the product
19 of the fraction of the funds raised from the sale of stock that accrues to existing
20 shareholders (v) and the fraction resulting from dividing the funds raised from the sale of
21 stock by the existing common equity (s).

22

⁴ Gordon, Myron J. *The Cost of Capital to a Public Utility*. MSU Public Utilities Studies, Michigan, 1974. pp 31-35.

1 **Q. What is the mathematical formula for the stock financing growth rate?**

2 A. The mathematical formula for stock financing growth is:

3 Equation 4:

$$\text{Stock Financing Growth} = vs$$

where: v = Fraction of the funds raised from the sale of stock that accrues
to existing shareholders

s = Funds raised from the sale of stock as a fraction of the existing
common equity

4
5 **Q. How is the variable v presented above calculated?**

6 A. Variable v is calculated as follows:

Equation 5:

$$v = 1 - \left(\frac{\text{book value}}{\text{market value}} \right)$$

7
8 For example, assume that a share of stock has a \$30 book value and is selling for \$45.

9 Then, to find the value of v , the formula is applied:

$$v = 1 - \left(\frac{30}{45} \right)$$

10 In this example, v is equal to 0.33.

11
12 **Q. How is the variable s presented above calculated?**

13 A. Variable s is calculated as follows:

14

15

Equation 6:

$$s = \frac{\text{Funds raised from the issuance of stock}}{\text{Total existing common equity before the issuance}}$$

For example, assume that an entity has \$150 in existing equity, and it sells \$30 of stock. Then, to find the value of s , the formula is applied:

$$s = \left(\frac{30}{150} \right)$$

In this example, s is equal to 20.0 percent.

Q. What is the vs term when the market-to-book ratio is equal to 1.0?

A. A market-to-book ratio of 1.0 reflects that investors expect an entity to earn a book/accounting return on their equity investment equal to the cost of equity. When the market-to-book ratio is equal to 1.0, none of the funds raised from the sale of stock by the entity accrues to the benefit of existing shareholders, i.e., the term v is equal to zero (0.0). Consequently, the vs term is also equal to zero (0.0). When stock financing growth is zero, dividend growth depends solely on the br term.

Q. What is the effect of the vs term when the market-to-book ratio is greater than 1.0?

A. A market-to-book ratio greater than 1.0 reflects that investors expect an entity to earn a book/accounting return on their equity investment greater than the cost of equity. Equation 5 shows that, when the market-to-book ratio is greater than 1.0, the v term is also greater than zero. The excess by which new shares are issued and sold over book value per share of outstanding stock is a contribution that accrues to existing stockholders in the form of a higher book value. The resulting higher book value leads to higher expected earnings and dividends. Continued growth from the vs term is dependent upon the

1 continued issuance and sale of additional shares at a price that exceeds book value per
2 share.

3
4 **Q. What v_s estimate did Staff calculate from its analysis of the sample water utilities?**

5 A. Staff estimated an average stock financing growth of 2.0 percent for the sample water
6 utilities, as shown in Schedule JAC-6.

7
8 **Q. What would occur if an entity had a market-to-book ratio greater than 1.0 as a result
9 of investors expecting earnings to exceed its cost of equity, and subsequently
10 experienced newly-authorized rates equal only to its cost of equity?**

11 A. *Ceteris paribus*, holding all other factors constant, one would expect market forces to
12 move the company's stock price lower, closer to a market-to-book ratio of 1.0, to reflect
13 investor expectations of reduced expected future cash flows.

14
15 **Q. If the average market-to-book ratio of Staff's sample water utilities were to fall to 1.0
16 due to authorized ROEs equaling their cost of equity, would inclusion of the v_s term
17 be necessary to Staff's constant-growth DCF analysis?**

18 A. No. As discussed above, when the market-to-book ratio is equal to 1.0, none of the funds
19 raised from the sale of stock by the entity accrues to the benefit of existing shareholders
20 because the v term equals to zero and, consequently, the v_s term also equals zero. When
21 the market-to-book ratio equals 1.0, dividend growth depends solely on the br term.
22 Staff's inclusion of the v_s term assumes that the market-to-book ratio continues to exceed
23 1.0 and that the water utilities will continue to issue and sell stock at prices above book
24 value with the effect of benefitting existing shareholders.

25

1 **Q. What are Staff's historical and projected sustainable growth rates?**

2 A. Staff's estimated historical sustainable growth rate is 4.9 percent based on an analysis of
3 earnings retention for the sample water companies. Staff's projected sustainable growth
4 rate is 6.3 percent based on retention growth projected by *Value Line*. Schedule JAC-6
5 presents Staff's estimates of the sustainable growth rate.
6

7 **Q. What is Staff's expected infinite annual growth rate in dividends?**

8 A. Staff's expected dividend growth rate (g) is 4.9 percent, which is the average of historical
9 and projected DPS, EPS, and sustainable growth estimates. Staff's calculation of the
10 expected infinite annual growth rate in dividends is shown in Schedule JAC-8.
11

12 **Q. What is Staff's constant-growth DCF estimate for the sample utilities?**

13 A. Staff's constant-growth DCF estimate is 8.0 percent, as shown in Schedule JAC-3.
14

15 The Multi-Stage DCF

16 **Q. Why did Staff implement the multi-stage DCF model to estimate Vail's cost of**
17 **equity?**

18 A. Staff generally uses the multi-stage DCF model to consider the assumption that dividends
19 may not grow at a constant rate. The multi-stage DCF uses two stages of growth, the first
20 stage (near-term) having a four-year duration, followed by the second stage (long-term) of
21 constant growth.
22

23 **Q. What is the mathematical formula for the multi-stage DCF?**

24 A. The multi-stage DCF formula is shown in the following equation:
25

Equation 7 :

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K-g_n} \left[\frac{1}{(1+K)} \right]^n$$

Where : P_0 = current stock price
 D_t = dividends expected during stage 1
 K = cost of equity
 n = years of non – constant growth
 D_n = dividend expected in year n
 g_n = constant rate of growth expected after year n

1

2 **Q. What steps did Staff take to implement its multi-stage DCF cost of equity model?**

3 A. First, Staff projected future dividends for each of the sample water utilities using near-
4 term and long-term growth rates. Second, Staff calculated the rate (cost of equity) which
5 equates the present value of the forecasted dividends to the current stock price for each of
6 the sample water utilities. Lastly, Staff calculated an overall sample average cost of
7 equity estimate.

8

9 **Q. How did Staff calculate near-term (stage-1) growth?**

10 A. The stage-1 growth rate is based on *Value Lines*'s projected dividends for the next twelve
11 months, when available, and on the average dividend growth (g) rate of 4.9 percent,
12 calculated in Staff's constant DCF analysis for the remainder of the stage.

13

1 **Q. How did Staff estimate long-term (stage-2) growth?**

2 A. Staff calculated the stage-2 growth rate using the arithmetic mean rate of growth in Gross
3 Domestic Product ("GDP") from 1929 to 2011.⁵ Using the GDP growth rate assumes that
4 the water utility industry is expected to grow at the same rate as the overall economy.

5
6 **Q. What is the historical GDP growth rate that Staff used to estimate stage-2 growth?**

7 A. Staff used 6.5 percent to estimate the stage-2 growth rate.
8

9 **Q. What is Staff's multi-stage DCF estimate for the sample utilities?**

10 A. Staff's multi-stage DCF estimate is 9.5 percent, as shown in Schedule JAC-3.
11

12 **Q. What is Staff's overall DCF estimate for the sample utilities?**

13 A. Staff's overall DCF estimate is 8.8 percent. Staff calculated the overall DCF estimate by
14 averaging the constant growth DCF (8.0%) and multi-stage DCF (9.5%) estimates, as
15 shown in Schedule JAC-3.
16

17 *Capital Asset Pricing Model*

18 **Q. Please describe the CAPM.**

19 A. The CAPM is used to determine the prices of securities in a competitive market. The
20 CAPM model describes the relationship between a security's investment risk and its
21 market rate of return. Under the CAPM, an investor requires the expected return of a
22 security to equal the rate on a risk-free security plus a risk premium. If the investor's
23 expected return does not meet or beat the required return, the investment is not
24 economically justified. The model also assumes that investors will sufficiently diversify

⁵ www.bea.doc.gov.

1 their investments to eliminate any non-systematic or unique risk.⁶ In 1990, Professors
2 Harry Markowitz, William Sharpe, and Merton Miller earned the Nobel Prize in
3 Economic Sciences for their contribution to the development of the CAPM.

4
5 **Q. Did Staff use the same sample water utilities in its CAPM and DCF cost of equity**
6 **estimation analyses?**

7 A. Yes. Staff's CAPM cost of equity estimation analysis uses the same sample water
8 companies as its DCF cost of equity estimation analysis.

9
10 **Q. What is the mathematical formula for the CAPM?**

11 A. The mathematical formula for the CAPM is:

12
Equation 8:

$$K = R_f + \beta (R_m - R_f)$$

where: R_f = risk free rate
 R_m = return on market
 β = beta
 $R_m - R_f$ = market risk premium
 K = expected return

13
14 The equation shows that the expected return (K) on a risky asset is equal to the risk-free
15 interest rate (R_f) plus the product of the market risk premium ($R_m - R_f$) multiplied by beta
16 (β) where beta represents the riskiness of the investment relative to the market.

17

⁶ The CAPM makes the following assumptions: 1) single holding period; 2) perfect and competitive securities market; 3) no transaction costs; 4) no restrictions on short selling or borrowing; 5) the existence of a risk-free rate; and 6) homogeneous expectations.

1 **Q. What is the risk-free rate?**

2 A. The risk-free rate is the rate of return of an investment free of default risk.

3
4 **Q. What does Staff use as surrogates to represent estimations of the risk-free rates of**
5 **interest in its historical and current market risk premium CAPM methods?**

6 A. Staff uses separate parameters as surrogates for the estimations of the risk-free rates of
7 interest for the historical market risk premium CAPM cost of equity estimation and the
8 current market risk premium CAPM cost of equity estimation. Staff uses the average of
9 three (5-, 7-, and 10-year) intermediate-term U.S. Treasury securities' spot rates in its
10 historical market risk premium CAPM cost of equity estimation, and the 30-year U.S.
11 Treasury bond spot rate in its current market risk premium CAPM cost of equity
12 estimation. Rates on U.S. Treasuries are largely verifiable and readily available.

13
14 **Q. What does beta measure?**

15 A. Beta is a measure of a security's price volatility, or systematic risk, relative to the market
16 as a whole. Since systematic risk cannot be diversified away, it is the only risk that is
17 relevant when estimating a security's required return. Using a baseline market beta
18 coefficient of 1.0, a security having a beta value less than 1.0 will be less volatile (i.e., less
19 risky) than the market. A security with a beta value greater than 1.0 will be more volatile
20 (i.e., more risky) than the market.

21
22 **Q. How did Staff estimate Vail's beta?**

23 A. Staff used the average of the *Value Line* betas for the sample water utilities as a proxy for
24 the Company's beta. Schedule JAC-7 shows the *Value Line* betas for each of the sample
25 water utilities. The 0.71 average beta coefficient for the sample water utilities is Staff's

1 estimated beta value for Vail. A security with a beta value of 0.71 has less volatility than
2 the market.

3
4 **Q. What is the market risk premium ($R_m - R_f$)?**

5 A. The market risk premium is the expected return on the market, minus the risk-free rate.
6 Simplified, it is the return an investor expects as compensation for market risk.

7
8 **Q. What did Staff use for the market risk premium?**

9 A. Staff uses separate calculations for the market risk premium in its historical and current
10 market risk premium CAPM methods.

11
12 **Q. How did Staff calculate an estimate for the market risk premium in its historical
13 market risk premium CAPM method?**

14 A. Staff uses the intermediate-term government bond income returns published in the
15 Ibbotson Associates' *Stocks, Bonds, Bills, and Inflation 2012 Yearbook* to calculate the
16 historical market risk premium. Ibbotson Associates calculates the historical risk
17 premium by averaging the historical arithmetic differences between the S&P 500 and the
18 intermediate-term government bond income returns for the period 1926-2011. Staff's
19 historical market risk premium estimate is 7.1 percent, as shown in Schedule JAC-3.

20
21 **Q. How did Staff calculate an estimate for the market risk premium in its current
22 market risk premium CAPM method?**

23 A. Staff solves equation 8 above to arrive at a market risk premium using a DCF-derived
24 expected return (K) of 12.87 ($2.2 + 10.67^7$) percent using the expected dividend yield (2.2
25 percent over the next twelve months) and the annual per share growth rate (10.67 percent)

⁷ The three to five year price appreciation is 50%. $1.50^{0.25} - 1 = 10.67\%$.

1 that *Value Line* projects for all dividend-paying stocks under its review⁸ along with the
2 current long-term risk-free rate (30-year Treasury note at 3.02 percent) and the market's
3 average beta of 1.0. Staff calculated the current market risk premium as 9.85 percent,⁹ as
4 shown in Schedule JAC-3.

5
6 **Q. What is the result of Staff's historical market risk premium CAPM and current**
7 **market risk premium CAPM cost of equity estimations for the sample utilities?**

8 A. Staff's cost of equity estimates are 6.3 percent using the historical market risk premium
9 CAPM and 10.0 percent using the current market risk premium CAPM.

10
11 **Q. What is Staff's overall CAPM estimate for the sample utilities?**

12 A. Staff's overall CAPM cost of equity estimate is 8.2 percent which is the average of the
13 historical market risk premium CAPM (6.3 percent) and the current market risk premium
14 CAPM (10.0 percent) estimates, as shown in Schedule JAC-3.

15
16 **VII. SUMMARY OF STAFF'S COST OF EQUITY ANALYSIS**

17 **Q. What is the result of Staff's constant-growth DCF analysis to estimate the cost of**
18 **equity for the sample water utilities?**

19 A. Schedule JAC-3 shows the result of Staff's constant-growth DCF analysis. The result of
20 Staff's constant-growth DCF analysis is as follows:

21
22
$$k = 3.1\% + 4.9\%$$

23
24
$$k = 8.0\%$$

25

⁸ January 25, 2013 issue date.

⁹ $12.87\% = 3.02\% + (1) (9.85\%)$.

Staff's constant-growth DCF estimate of the cost of equity for the sample water utilities is 8.0 percent.

Q. What is the result of Staff's multi-stage DCF analysis to estimate of the cost of equity for the sample utilities?

A. Schedule JAC-9 shows the result of Staff's multi-stage DCF analysis. The result of Staff's multi-stage DCF analysis is:

Company	Equity Cost Estimate (k)
American States Water	9.0%
California Water	9.8%
Aqua America	9.0%
Connecticut Water	9.7%
Middlesex Water	10.3%
SJW Corp	<u>9.2%</u>
Average	9.5%

Staff's multi-stage DCF estimate of the cost of equity for the sample water utilities is 9.5 percent.

Q. What is Staff's overall DCF estimate of the cost of equity for the sample utilities?

A. Staff's overall DCF estimate of the cost of equity for the sample utilities is 8.8 percent. Staff calculated an overall DCF cost of equity estimate by averaging Staff's constant growth DCF (8.0 percent) and Staff's multi-stage DCF (9.5 percent) estimates, as shown in Schedule JAC-3.

1 **Q. What is the result of Staff's historical market risk premium CAPM analysis to**
2 **estimate of the cost of equity for the sample utilities?**

3 A. Schedule JAC-3 shows the result of Staff's CAPM analysis using the historical risk
4 premium estimate. The result is as follows:

5
6
$$k = 1.3\% + 0.71 * 7.1\%$$

7
$$k = 6.3\%$$

8

9 Staff's CAPM estimate (using the historical market risk premium) of the cost of equity to
10 the sample water utilities is 6.3 percent.

11
12 **Q. What is the result of Staff's current market risk premium CAPM analysis to**
13 **estimate the cost of equity for the sample utilities?**

14 A. Schedule JAC-3 shows the result of Staff's CAPM analysis using the current market risk
15 premium estimate. The result is:

16
17
$$k = 3.0\% + 0.71 * 9.8\%$$

18
$$k = 10.0\%$$

19
20

21 Staff's CAPM estimate (using the current market risk premium) of the cost of equity to the
22 sample water utilities is 10.0 percent.

23
24 **Q. What is Staff's overall CAPM estimate of the cost of equity for the sample utilities?**

25 A. Staff's overall CAPM estimate for the sample utilities is 8.2 percent. Staff's overall
26 CAPM estimate is the average of the historical market risk premium CAPM (6.3 percent)

1 and the current market risk premium CAPM (10.0 percent) estimates, as shown in
2 Schedule JAC-3.

3
4 **Q. Please summarize the results of Staff's cost of equity analysis for the sample utilities.**

5 A. The following table shows the results of Staff's cost of equity analysis:

7 **Table 2**

Method	Estimate
Average DCF Estimate	8.8%
Average CAPM Estimate	8.2%
Overall Average	8.5%

8
9 Staff's average estimate of the cost of equity to the sample water utilities is 8.5 percent.

10
11 **VIII. FINAL COST OF EQUITY ESTIMATES FOR VAIL**

12 **Q. Please compare Vail's capital structure to that of the six sample water companies.**

13 A. The average capital structure for the sample water utilities is composed of 48.4 percent
14 equity and 51.6 percent debt, as shown in Schedule JAC-4. Vail's capital structure is
15 composed of 100.0 percent equity and 0.0 percent debt. In this case, since Vail's capital
16 structure is less leveraged than that of the average sample water utilities' capital structure,
17 its stockholders bear less financial risk than the sample water utilities.

18
19 **Q. Does Vail's reduced financial risk affect its cost of equity?**

20 A. Yes. As previously discussed, financial risk is a component of market risk and investors
21 require compensation for market risk. Since Vail's financial risk is less than that of the
22 average sample water companies, its cost of equity is lower than that of the sample water
23 companies.

1 **Q. Is Staff recommending a downward financial risk adjustment to Vail's cost of equity**
2 **in recognition of the Company having less exposure to financial risk than the sample**
3 **water utilities?**

4 A. No. Because Vail does not have access to the capital markets, Staff is not recommending
5 a downward financial risk adjustment to the Company's cost of equity.
6

7 **Q. Does Staff have established criteria for determining when to apply a downward**
8 **financial risk adjustment?**

9 A. Yes. Staff normally applies two criteria in assessing whether application of a downward
10 financial risk adjustment is appropriate. The first consideration is whether the utility has a
11 reasonably economical capital structure. Staff considers a capital structure composed of
12 no more than 60 percent equity to meet this condition. If equity exceeds 60 percent, as it
13 does for Vail, Staff considers application of a downward financial risk adjustment to be
14 appropriate if the utility meets the second criteria. The second condition is whether the
15 utility has access to equity capital markets. As noted above, Vail does not have access to
16 the equity capital markets; accordingly, Staff does not recommend a downward financial
17 risk adjustment to the Company's cost of equity.
18

19 **Q. Did Staff consider factors other than the results of its technical models in its cost of**
20 **equity analysis?**

21 A. Yes. In consideration of the relatively uncertain status of the economy and the market that
22 currently exists, Staff is proposing an Economic Assessment Adjustment to the cost of
23 equity. In this case, Staff recommends a 60 basis point (0.6 percent) upward Economic
24 Assessment Adjustment, as shown in Schedule JAC-3.
25

1 **Q. What is Staff's ROE estimate for Vail?**

2 A. Staff determined a COE estimate of 8.5 percent for Vail based on cost of equity estimates
3 for the sample companies of 8.8 percent for the DCF and 8.2 percent for the CAPM. Staff
4 recommends adoption of a 60 basis point upward Economic Assessment Adjustment
5 resulting in a 9.1 percent Staff-recommended ROE, as shown in Schedule JAC-3.

6
7 **IX. RATE OF RETURN RECOMMENDATION**

8 **Q. What overall rate of return did Staff determine for Vail?**

9 A. Staff determined a 9.1 percent ROR for the Company, as shown in Schedule JAC-1 and
10 the following table:

11
12 **Table 3**

13

	Weight	Cost	Weighted Cost
Long-term Debt	0.0%	0.0%	0.0%
Common Equity	100.0%	9.1%	<u>9.1%</u>
Overall ROR			<u>9.1%</u>

14
15 **X. STAFF RESPONSE TO COMPANY'S COST OF CAPITAL WITNESS MR.**
16 **THOMAS J. BOURASSA**

17 **Q. Please summarize Mr. Bourassa's analyses and recommendations.**

18 A. Mr. Bourassa recommends a 10.40 percent ROE based on estimates derived from two
19 constant growth DCF analyses, two CAPM analyses, and two Build-up risk premium
20 models designed as a check for reasonableness to his DCF and CAPM results, using a
21 proxy sample of six publicly-traded water companies. He proposes a capital structure
22 consisting of 0.0 percent long-term debt and 100.0 percent equity. Mr. Bourassa's
23 recommended ROE includes a downward 120 basis point financial risk adjustment, and an

1 upward 100 basis point small company risk premium. His overall recommended rate of
2 return for the Company is 10.4 percent.

3
4 For purposes of his constant growth DCF analyses, Mr. Bourassa gives a 50 percent
5 weight to the estimates derived from his primary Future Growth DCF model and a 50
6 percent weight to the estimates derived from his Past and Future Growth DCF model;
7 thus, effectively providing an overall 75 percent weight to the results obtained from his
8 Future Growth DCF. In his primary Future Growth DCF model, Mr. Bourassa relies
9 exclusively on analysts' forecasts for EPS growth to estimate the dividend growth (g)
10 component. In his Past and Future Growth DCF model, Mr. Bourassa estimates his
11 dividend growth (g) rate by giving 50 percent weight to historical measures of growth in
12 annual share price, BVPS, EPS and DPS over a five-year period, and 50 percent weight to
13 the dividend growth rate obtained from his primary Future Growth DCF model (See TJB
14 Schedule D-4.4). For purposes of calculating the current dividend yield (D_0/P_0) in each of
15 his two constant growth DCF models, Mr. Bourassa claims to use a spot price date of July
16 10, 2012 for the current market price (P_0) of each sample company.¹⁰ However, a check
17 of market trading prices for each of his sample companies on that date suggests he has
18 understated the current market price (P_0) for all sample companies except one.

19
20 For purposes of his CAPM analyses, Mr. Bourassa presents estimates based upon both
21 historical and current market risk premia. In both, however, he uses a 3.2 percent
22 forecasted risk free (R_f) rate based, in part, upon estimates from Value Line and Blue
23 Chip Consensus Forecasts for the 30-year long-term Treasury yield covering the period,
24 2012-2013 (See TJB Schedule D-4.10). In his Current Market Risk Premium CAPM
25 model, Mr. Bourassa calculates a DCF-derived market risk premium ($R_m - R_f$), using as

¹⁰ Direct Testimony of Thomas J. Bourassa, p. 29, lines 19-21; and TJB Schedule D-4.7, footnote 1.

1 inputs *Value Line's* current dividend yield and 3-5 year price appreciation projection for
2 the 1700 stocks under its review (See TJB Schedule D-4.11).

3
4 **Q. Does Staff have any comments on Mr. Bourassa's sole reliance on analysts' forecasts**
5 **of EPS growth rates to estimate dividend growth rate (g) in his Future Growth DCF**
6 **analysis?**

7 A. Yes. Exclusive reliance on analysts' forecasts of earnings growth to forecast DPS is
8 inappropriate because it assumes that investors do not look at other relevant information
9 such as historical dividend and earnings growth. Generally, analysts' forecasts are known
10 to be overly optimistic. Sole use of analysts' forecasts to calculate the expected dividend
11 growth rate, (g), serves to inflate that component of the DCF model and, consequently, the
12 estimated cost of equity. The appropriate growth rate to use in the DCF model is the
13 dividend growth rate expected by *investors*, not by analysts. Investors are assumed to be
14 rational, and as such will want to take into consideration all relevant available information
15 prior to making an investment decision. Therefore, it is reasonable to assume that
16 investors would consider both historical measures of past growth, as well as analysts'
17 forecasts of future growth.

18
19 **Q. Does the narrative of Mr. Bourassa's Direct Testimony state the fact that he relies**
20 **exclusively on analysts' forecasts of EPS growth to estimate the expected dividend**
21 **growth rate (g) in his Future Growth DCF model?**

22 A. No. Mr. Bourassa states only that "I have used analyst growth forecasts, where
23 available,"¹¹ and that "I use as a primary estimate of growth analysts' forecasts of
24 growth."¹² Only when referring to TJB Schedule D-4.6 does one learn that he has relied
25 exclusively on analysts' forecasts of EPS growth to estimate (g).

¹¹ Direct testimony of Mr. Thomas J. Bourassa, page 30, lines 1-2.

¹² Direct testimony of Mr. Thomas J. Bourassa, page 30, lines 13-14.

1 **Q. Does Staff have evidence to support its assertion that exclusive reliance on analysts'**
2 **forecasts of earnings growth in the DCF model would result in inflated cost of equity**
3 **estimates?**

4 A. Yes. Experts in the financial community have commented on the optimism in analysts'
5 forecasts of future earnings.¹³ A study cited by David Dreman in his book *Contrarian*
6 *Investment Strategies: The Next Generation* found that *Value Line* analysts were
7 optimistic in their forecasts by 9 percent annually, on average for the 1987 – 1989 period.
8 Another study conducted by David Dreman found that between 1982 and 1997, analysts
9 overestimated the growth of earnings of companies in the S&P 500 by 188 percent.

10
11 Burton Malkiel, of Princeton University, conducted a study of the 1- and 5-year earnings
12 forecasts made by some of the most respected names in the investment business. His
13 results showed that when compared with actual earnings growth rates, the 5-year forecasts
14 made by professional analysts were far less accurate than estimates derived from several
15 naïve forecasting models, such as the long-run growth rate in national income. In the
16 following excerpt from his book, *A Random Walk Down Wall Street*, Professor Malkiel
17 discusses the results of his study:

18
19 When confronted with the poor record of their five-year growth
20 estimates, *the security analysts honestly, if sheepishly, admitted*
21 *that five years ahead is really too far in advance to make reliable*
22 *projections.* They protested that although long-term projections
23 are admittedly important, they really ought to be judged on their
24 ability to project earnings changes one year ahead. Believe it or
25 not, it turned out that their one-year forecasts were even worse than
26 their five-year projections.

¹³ See Seigel, Jeremy J. *Stocks for the Long Run*. 2002. McGraw-Hill. New York. p. 100. Dreman, David. *Contrarian Investment Strategies: The Next Generation*. 1998. Simon & Schuster. New York. pp. 97-98. Malkiel, Burton G. *A Random Walk Down Wall Street*. 2003. W.W. Norton & Co. New York. p. 175. Testimony of Professors Myron J. Gordon and Lawrence I. Gould, consultant to the Trial Staff (Common Carrier Bureau), FCC Docket 79-63, p. 95.

1 The analysts fought back gamely. They complained that it was
2 unfair to judge their performance on a wide cross section of
3 industries, because earnings for high-tech firms and various
4 "cyclical" companies are notoriously hard to forecast. *"Try us on*
5 *utilities," one analyst confidently asserted. At the time they were*
6 *considered among the most stable group of companies because of*
7 *government regulation. So we tried it and they didn't like it. Even*
8 *the forecasts for the stable utilities were far off the mark.*¹⁴
9 (Emphasis added)

10
11 **Q. Are investors aware of the problems related to analysts' forecasts?**

12 A. Yes. In addition to books, there are numerous published articles appearing in *The Wall*
13 *Street Journal* and other financial publications that cast doubt on the accuracy of research
14 analysts' forecasts.¹⁵ Investors, being keenly aware of these inherent biases in forecasts,
15 will use other methods to assess future growth.

16
17 **Q. Should DPS growth be considered in a DCF analysis?**

18 A. Yes. As previously stated in Section VI of this testimony, the current market price of a
19 stock is equal to the present value of all expected future dividends, not future earnings.
20 Professor Jeremy Siegel from the Wharton School of Finance stated:

21
22 Note that the price of the stock is always equal to the present value
23 of all future *dividends* and not the present value of future earnings.
24 Earnings not paid to investors can have value only if they are paid
25 as dividends or other cash disbursements at a later date. Valuing
26 stock as the present discounted value of future earnings is
27 manifestly wrong and greatly overstates the value of the firm.¹⁶
28

¹⁴ Malkiel, Burton G. *A Random Walk Down Wall Street*. 2003. W.W. Norton & Co. New York. p. 175

¹⁵ See Smith, Randall & Craig, Suzanne. "Big Firms Had Research Ploy: Quiet Payments Among Rivals." *The Wall Street Journal*. April 30, 2003. Brown, Ken. "Analysts: Still Coming Up Rosy." *The Wall Street Journal*. January 27, 2003. p. C1. Karmin, Craig. "Profit Forecasts Become Anybody's Guess." *The Wall Street Journal*. January 21, 2003. p. C1. Gasparino, Charles. "Merrill Lynch Investigation Widens." *The Wall Street Journal*. April 11, 2002. p. C4. Elstein, Aaron. "Earnings Estimates Are All Over the Map." *The Wall Street Journal*. August 2, 2001. p. C1. Dreman, David. "Don't Count on those Earnings Forecasts." *Forbes*. January 26, 1998. p. 110.

¹⁶ Siegel, Jeremy J. *Stocks for the Long Run*. 2002. McGraw-Hill. New York. P. 93.

1 For valuation purposes, therefore, earnings paid out in the form of a dividend have
2 paramount relevancy to investors. Dividends, unlike earnings, can not be manipulated or
3 overstated. Thus, historical DPS growth should receive appropriate consideration when
4 estimating the market cost of equity in the DCF model.

5
6 **Q. Does Staff have reason to believe that Mr. Bourassa has overstated the current**
7 **dividend yield (D_0/P_0) component in each of his two constant growth DCF models?**

8 A. Yes. In his testimony, Mr. Bourassa states that he used a spot price date of July 10, 2012
9 to obtain current market (P_0) prices for each of his six sample companies. Without
10 exception, however, a check of market trading prices for that date reveal that the spot
11 prices presented in TJB Schedule D-4.7 do not fall within the actual July 10, 2012 trading
12 range for any of Mr. Bourassa's sample companies, and that with one exception (SJW
13 Corporation), the current market (P_0) price displayed for each sample company has been
14 understated.

15
16 **Q. What affect does an understated current market (P_0) price have upon the calculation**
17 **of a current dividend (D_0/P_0) yield?**

18 A. Because the (P_0) value is in the denominator of the current dividend (D_0/P_0) yield
19 equation, an understatement to (P_0) results in an overstatement to (D_0/P_0).

20
21 **Q. Does an overstatement to the current dividend (D_0/P_0) yield flow through to the**
22 **calculation of next year's expected dividend (D_1/P_0) yield in the DCF model?**

23 A. Yes, and the overstatement to the expected dividend yield is magnified, as (D_1/P_0)
24 represents the current dividend yield (D_0/P_0) multiplied by the quantity $(1 + g)$.
25 Furthermore, this magnified overstatement to (D_1/P_0) ultimately flows through to the
26 estimate to be derived for the cost (k) of equity from the DCF model.

1 **Q. Did Staff endeavor to quantify the magnitude of the overstatement to Mr. Bourassa's**
2 **DCF cost of equity estimates stemming from the understatement of his July 10, 2012**
3 **spot prices (P_0)?**

4 A. Yes, Staff has prepared two Exhibits with which to do so. In Exhibit JAC-A, Staff
5 presents corrections to TJB Schedule D-4.7, demonstrating that Mr. Bourassa's
6 understated July 10, 2012 spot (P_0) prices led to an overstatement of his current dividend
7 (D_0/P_0) yield of 17.4 basis points. In Exhibit JAC-B, Staff presents corrections to TJB
8 Schedule D-4.8, and demonstrates that Mr. Bourassa's 17.4 basis point overstatement to
9 the current dividend (D_0/P_0) yield ultimately resulted in a 20 basis point overstatement to
10 both the expected dividend (D_1/P_0) yield and his DCF estimate for the market cost (k) of
11 equity. (Please refer to Staff Exhibits JAC-A and JAC-B for details, as well as the written
12 observation accompanying each.)
13

14 **Q. How does Mr. Bourassa calculate the expected dividend growth (g) rate used in his**
15 **Past and Future Growth DCF model?**

16 A. Mr. Bourassa estimates the expected dividend growth rate by providing 50 percent weight
17 to historical measures of growth in average annual share price, book value per share,
18 earnings per share and dividends per share for his sample companies over a five-year
19 period and 50 percent weight to the average of analysts' forecasts for EPS growth used in
20 his Future Growth DCF (See TJB Schedule D-4.4).
21

22 **Q. Does Staff have any comment on Mr. Bourassa's use of growth in average annual**
23 **share price to estimate the expected dividend growth (g) component in his Past and**
24 **Future Growth DCF model?**

25 A. Yes. In and of itself, share price appreciation is not a determinant of dividend growth, and
26 for this reason Staff considers its use as a growth parameter to be inappropriate. However,

1 as Mr. Bourassa has utilized it as a parameter by which to estimate dividend growth, Staff
2 would point out that in both his five- and ten-year historical growth DCF analyses, share
3 price growth has exceeded that of dividend growth. Specifically, in his five-year historical
4 growth analysis (See TJB Schedule D-4.4), average share price growth (4.19%) exceeded
5 average DPS growth (3.33%) by 25.8 percent ($((.0419/.0333) - 1) = 25.8\%$), and in his
6 ten-year historical growth analysis (See TJB Schedule D-4.5), average share price growth
7 (5.27%) exceeded average DPS growth (3.08%) by 71.1 percent ($((.0527/.0308) - 1) =$
8 71.1%).
9

10 **Q. As it relates to the cost of equity, what is the significance of Mr. Bourassa's sample**
11 **water companies having experienced share price growth in excess of DPS growth**
12 **over both the last five- and ten-year periods?**

13 A. Simply stated, it is an indication that the cost of equity for publicly-traded water utilities
14 has fallen over each of the last 5 and 10 year periods. When the market price per share of
15 common stock for a given firm rises faster than does the dividend paid on a per share
16 basis, the dividend yield falls. As dividend yields fall, investors pay more for an
17 equivalent unit of return on their investment, resulting in a lower cost of equity. Markets
18 are efficient, and because prices for publicly traded stocks can rise only if investors are
19 willing to bid up the share price, when share price growth exceeds DPS growth over a
20 five- or ten-year period, the willingness of investors to continue to bid up share prices is
21 reflective of investor expectations that market returns have fallen. Thus, Mr. Bourassa's
22 use of share price growth increases his cost of equity estimate at a time when share price
23 growth actually reflects a decrease in cost of equity. This incongruous outcome is the
24 result of choosing an inappropriate parameter for dividend growth in the DCF model.
25

1 **Q. Turning to Mr. Bourassa's CAPM analyses, does Staff agree with his use of a**
2 **forecasted risk-free interest rate?**

3 A. No. The appropriate risk-free interest rate to be used is the current rate borne by investors
4 in the market. Use of a forecasted risk-free rate only serves to overstate the estimated
5 market cost of equity.

6
7 **Q. What risk-free rate does Mr. Bourassa use in his CAPM analyses?**

8 A. In both his historical and current market risk premia CAPM analyses, Mr. Bourassa uses a
9 forecasted risk-free rate (R_f) based, in part, upon estimates from Value Line and Blue
10 Chip Consensus Forecasts for the 30-year long-term Treasury yield covering the period,
11 2012-2013. The forecasted rate used by Mr. Bourassa in his CAPM analyses is 3.2
12 percent. At present, the current 30-year long-term Treasury yield is 3.0 percent,
13 suggesting that he has overstated the risk-free rate in his CAPM analysis by 20 basis
14 points.

15
16 **Q. For purposes of his Current Market Risk Premium CAPM analysis, how does Mr.**
17 **Bourassa compute the current market risk premium ($R_m - R_f$) component?**

18 A. As shown in TJB Schedule D-4.11, Mr. Bourassa computes a DCF-derived current market
19 risk premium utilizing as inputs the average current dividend yield and 3 to 5 year price
20 appreciation potential growth rate projected for the 1700 stocks under its review. A
21 review of TJB Schedule D-4.11 shows that Mr. Bourassa's recommended dividend yield
22 (D_0/P_0) is 2.74 percent, and that his recommended growth (g) rate based upon Value
23 Line's 3-5 year price appreciation potential is 16.64 percent (See TJB Schedule D-4.11,
24 footnotes 1 and 3). However, this Value Line dividend yield is currently 2.2 percent (not
25 2.74%), and a growth rate based upon Value Line's projected 3-5 year current price
26 appreciation of 50 percent would translate into an annual compound growth rate of 10.67

1 percent (not 16.64%). Accordingly, Mr. Bourassa's computation has significantly
2 overstated the current market risk ($R_m - R_f$) premium in his Current Market Risk Premium
3 CAPM.

4
5 **Q. Does Staff have any comment regarding Mr. Bourassa's proposed 100 basis point**
6 **small company risk premium?**

7 A. Yes. The Commission previously ruled in Decision No. 64282¹⁷ for Arizona Water that
8 firm size does not warrant recognition of a risk premium stating, "We do not agree with
9 the Company's proposal to assign a risk premium to Arizona Water based on its size
10 relative to other publicly traded water utilities...." The Commission confirmed its
11 previous ruling in Decision No. 64727¹⁸ for Black Mountain Gas agreeing with Staff that
12 "the 'firm size phenomenon' does not exist for regulated utilities, and that therefore there
13 is no need to adjust for risk for small firm size in utility regulation." All companies have
14 firm-specific risks; therefore, the existence of unique risks for a company does not lead to
15 the conclusion that its total risk is greater than other entities. Moreover, as previously
16 discussed, investors cannot expect compensation for firm-specific risk since it can be
17 eliminated through diversification.

18
19 **XI. CONCLUSION**

20 **Q. Please summarize Staff's recommendations.**

21 A. Staff recommends that the Commission adopt an 9.1 percent overall rate of return for the
22 Company based on a capital structure composed of 0.0 percent debt and 100.0 percent
23 equity, Staff's 8.5 percent cost of equity estimate, and Staff's 60 basis point (0.6 percent)
24 upward economic assessment adjustment.

25

¹⁷ Dated December 28, 2001.

¹⁸ Dated April 17, 2002.

- 1 **Q. Does this conclude your Direct Testimony?**
- 2 **A. Yes, it does.**

Vail Water Company - Cost of Capital Calculation
Capital Structure
And Weighted Average Cost of Capital
Staff Recommended and Company Proposed

[A]	[B]	[C]	[D]
<u>Description</u>	<u>Weight (%)</u>	<u>Cost</u>	<u>Weighted Cost</u>
Staff Recommended Structure			
Debt	0.0%	0.0%	0.0%
Common Equity	100.0%	9.1%	<u>9.1%</u>
Weighted Average Cost of Capital			9.1%
Company Proposed Structure			
Debt	0.0%	0.0%	0.0%
Common Equity	100.0%	10.4%	<u>10.4%</u>
Weighted Average Cost of Capital			10.4%

[D] : [B] × [C]

Supporting Schedules: JAC-3 and JAC-4.

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Vail Water Company - Cost of Capital Calculation
Final Cost of Equity Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
DCF Method				
Constant Growth DCF Estimate		$\frac{D_1/P_0}{1}$	+	$\frac{g^2}{2}$
Multi-Stage DCF Estimate		3.1%	+	4.9%
Average DCF Estimate				<u>8.0%</u>
				<u>9.5%</u>
				<u>8.8%</u>
CAPM Method				
Historical Market Risk Premium ³	Rf	β^5	x	(Rp)
Current Market Risk Premium ⁴	1.3%	0.71	x	7.1% ⁶
Average CAPM Estimate	3.0%	0.71	x	9.8% ⁷
				<u>6.3%</u>
				<u>10.0%</u>
				<u>8.2%</u>
Average of Overall Estimates				
Economic Assessment Adjustment				
Sub-Total				
Financial risk adjustment				
Total				
				<u>8.5%</u>
				<u>0.6%</u>
				<u>9.1%</u>
				<u>0.0%</u>
				<u>9.1%</u>

1 MSN Money and Value Line

2 Schedule JAC-8

3 Risk-free rate (Rf) for 5, 7, and 10 year Treasury rates from the U.S. Treasury Department at www.ustreas.gov4 Risk-free rate (Rf) for 30 Year Treasury bond rate from the U.S. Treasury Department at www.ustreas.gov

5 Value Line

6 Historical Market Risk Premium (Rp) calculated from Ibbotson Associates S&PBI 2012 Yearbook data

7 Testimony

Vail Water Company - Cost of Capital Calculation
Average Capital Structure of Sample Water Utilities

[A]	[B]	[C]	[D]
<u>Company</u>	<u>Debt</u>	<u>Common Equity</u>	<u>Total</u>
American States Water	46.0%	54.0%	100.0%
California Water	53.3%	46.7%	100.0%
Aqua America	53.9%	46.1%	100.0%
Connecticut Water	57.1%	42.9%	100.0%
Middlesex Water	43.3%	56.7%	100.0%
SJW Corp	<u>55.7%</u>	<u>44.3%</u>	<u>100.0%</u>
Average Sample Water Utilities	51.6%	48.4%	100.0%
Vail Water - Actual Capital Structure	0.0%	100.0%	100.0%

Source:

Sample Water Companies from Value Line

Vail Water Company - Cost of Capital Calculation
Growth in Earnings and Dividends
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
Company	Dividends Per Share 2003 to 2012 <u>DPS^{1,2}</u>	Dividends Per Share Projected <u>DPS^{1,3}</u>	Earnings Per Share 2002 to 2011 <u>EPS¹</u>	Earnings Per Share Projected <u>EPS¹</u>
American States Water	3.9%	5.9%	5.1%	4.7%
California Water	1.2%	3.4%	6.2%	8.6%
Aqua America	7.7%	4.5%	7.3%	5.6%
Connecticut Water	1.7%	3.5%	0.4%	9.1%
Middlesex Water	1.7%	1.9%	2.4%	8.3%
SJW Corp	<u>4.4%</u>	<u>3.0%</u>	<u>3.7%</u>	<u>5.5%</u>
Average Sample Water Utilities	3.4%	3.7%	4.2%	7.0%

¹ Value Line

² Value Line -- Ten-year historical dividend growth updated from 2003-2012 as it is known and measurable.

³ Value Line -- Projected DPS growth covers the four-year period, 2012-2016.

Vail Water Company - Cost of Capital Calculation
Sustainable Growth
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]
Company	Retention Growth 2002 to 2011 br	Retention Growth Projected br	Stock Financing Growth vs	Sustainable Growth 2002 to 2011 br + vs	Sustainable Growth Projected br + vs
American States Water	3.6%	5.3%	2.5%	6.1%	7.8%
California Water	2.2%	4.8%	2.2%	4.4%	7.0%
Aqua America	4.4%	5.2%	2.3%	6.7%	7.6%
Connecticut Water	2.2%	4.0%	1.0%	3.2%	5.0%
Middlesex Water	1.3%	3.3%	3.7%	5.0%	7.0%
SJW Corp	3.7%	3.2%	0.1%	3.8%	3.3%
Average Sample Water Utilities	2.9%	4.3%	2.0%	4.9%	6.3%

[B]: Value Line

[C]: Value Line

[D]: Value Line and MSN Money

[E]: [B]+[D]

[F]: [C]+[D]

Vail Water Company - Cost of Capital Calculation
Selected Financial Data of Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[G]
Company	Symbol	Spot Price 1/23/2013	Book Value	Mkt To Book	Value Line Beta β	Raw Beta β_{raw}
American States Water	AWR	51.03	22.26	2.3	0.70	0.52
California Water	CWT	19.35	11.40	1.7	0.65	0.45
Aqua America	WTR	26.99	9.49	2.8	0.60	0.37
Connecticut Water	CTWS	29.76	13.67	2.2	0.75	0.60
Middlesex Water	MSEX	19.52	11.97	1.6	0.70	0.52
SJW Corp	SJW	26.77	15.36	1.7	0.85	0.75
Average				2.1	0.71	0.53

[C]: Msn Money

[D]: Value Line

[E]: [C] / [D]

[F]: Value Line

[G]: $(-0.35 * [F]) / 0.67$

Vail Water Company - Cost of Capital Calculation
Calculation of Expected Infinite Annual Growth in Dividends
Sample Water Utilities

[A]	[B]
<u>Description</u>	<u>g</u>
DPS Growth - Historical ¹	3.4%
DPS Growth - Projected ¹	3.7%
EPS Growth - Historical ¹	4.2%
EPS Growth - Projected ¹	7.0%
Sustainable Growth - Historical ²	4.9%
<u>Sustainable Growth - Projected²</u>	<u>6.3%</u>
Average	4.9%

¹ Schedule JAC-5

² Schedule JAC-6

Vail Water Company - Cost of Capital Calculation
Multi-Stage DCF Estimates
Sample Water Utilities

[A] Company	[B] Current Mkt. Price (P_0) ¹ 1/23/2013	[C] Projected Dividends ² (Stage 1 growth) (D_t)				[E]	[F]	[H] Stage 2 growth ³ (g_n)	[I] Equity Cost Estimate (K) ⁴
		d_1	d_2	d_3	d_4				
American States Water	51.0	1.30	1.36	1.43	1.50			6.5%	9.0%
California Water	19.4	0.66	0.69	0.73	0.76			6.5%	9.8%
Aqua America	27.0	0.69	0.73	0.76	0.80			6.5%	9.0%
Connecticut Water	29.8	0.98	1.03	1.08	1.14			6.5%	9.7%
Middlesex Water	19.5	0.77	0.81	0.85	0.89			6.5%	10.3%
SJW Corp	26.8	0.74	0.78	0.82	0.86			6.5%	9.2%

Average **9.5%**

$$P_0 = \sum_{t=1}^n \frac{D_t}{(1+K)^t} + \frac{D_n(1+g_n)}{K - g_n} \left[\frac{1}{(1+K)} \right]^n$$

Where : P_0 = current stock price

D_t = dividends expected during stage 1

K = cost of equity

n = years of non – constant growth

D_n = dividend expected in year n

g_n = constant rate of growth expected after year n

¹ [B] see Schedule JAC-7

² Derived from Value Line Information

³ Average annual growth in GDP 1929 - 2011 in current dollars.

⁴ Internal Rate of Return of Projected Dividends

Staff Correction to Bourassa Schedule D-4.7
(Current Dividend Yields for Water Utility Sample Group)

Company	Actual Trading Prices as of July 10, 2012 (Bourassa Spot Price Date)				Bourassa Spot Price	Variance from Actual Closing Price		Bourassa Proposed				Staff Corrected				Overstatement to (Do/Po)
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]			
	Open 10-Jul-12	High 10-Jul-12	Low 10-Jul-12	Close 10-Jul-12	Bourassa 10-Jul-12	Dollars (\$)	Percent (%)	Bourassa Spot Price 10-Jul-12 (Po)	Current Dividend (Do)	Current Dividend Yield (Do/Po)	Actual Close 10-Jul-12 (Po)	Trailing 12-Month Dividend (Do)	Current Dividend Yield (Do/Po)			
1 American States Water	\$ 41.00	\$ 41.20	\$ 40.74	\$ 41.14	\$ 36.36	\$ 4.78	13.15%	\$ 36.36	\$ 1.10	3.03%	\$ 41.14	\$ 1.12	2.72%	0.30%		
2 Aqua America	26.00	26.23	25.88	26.08	22.23	3.85	17.32%	22.23	0.63	2.83%	26.08	0.64	2.45%	0.38%		
3 California Water	18.72	18.83	18.68	18.77	17.94	0.83	4.63%	17.94	0.62	3.46%	18.77	0.62	3.30%	0.15%		
4 Connecticut Water	29.75	30.25	29.54	29.80	28.23	1.57	5.56%	28.23	0.94	3.33%	29.80	0.95	3.17%	0.16%		
5 Middlesex Water	19.09	19.14	18.90	19.13	18.50	0.63	3.41%	18.50	0.73	3.95%	19.13	0.74	3.84%	0.10%		
6 SIW Corporation	23.89	24.09	23.70	24.05	24.32	(0.27)	-1.11%	24.32	0.69	2.84%	24.05	0.70	2.89%	-0.05%		
Averages						\$ 1.90	7.16%			3.24%			3.06%	0.174%		

Observation: For purposes of his current dividend yield calculation (Do/Po), Mr. Bourassa claims to use a spot price (Po) date of July 10, 2012 (see Footnote 1, TJB Schedule D-4.7). Without exception, however, the spot prices used by Mr. Bourassa do not fall within the actual trading range for any of his six sample companies on that date. As shown above, on average Mr. Bourassa understates the actual July 10, 2012 closing price for each of his sample companies by \$1.90 per share, or 7.16 percent. In dollar terms, the largest understatement (\$4.78) is to American States Water (\$41.14 - \$36.36 = \$4.78); in percentage terms, the largest understatement (17.32%) is to Aqua America's stock price (\$3.85 / \$22.23). The spot price used for SIW Corporation (\$24.32) is the only spot price overstated by Mr. Bourassa. By understating his July 10, 2012 spot prices, Mr. Bourassa reduces the denominator (Po) of the current dividend yield (Do/Po) equation, resulting in an overstatement to the current dividend yield. As shown above, Mr. Bourassa's July 10, 2012 sample average current dividend yield (Do/Po) has been overstated by 17.4 basis points (3.24% - 3.06% = 0.174%).

- [A]: Opening Stock Price, July 10, 2012
[B]: Intra-day High Stock Price, July 10, 2012
[C]: Intra-day Low Stock Price, July 10, 2012
[D]: Closing Stock Price, July 10, 2012
[E]: Bourassa Spot Price for July 10, 2012 (Source: TJB Schedule D-4.7)
[F]: [D] - [E]
[G]: [F] / [E]
[H]: [E]
[I]: Bourassa Current Dividend (Do) (Source: TJB Schedule D-4.7)
[J]: [I] / [H]
[K]: [D]
[L]: Actual Trailing 12-Month Dividend (Do), as of July 10, 2012
[M]: [L] / [K]
[N]: [J] - [M]

Sources:
Historical Market Prices for July 10, 2012: Yahoo Finance.
Trailing 12-Month Dividend for July 10, 2012: Value Line.

Staff Correction to Bourassa Schedule D-4.8
(DCF Constant Growth)

Bourassa Proposed					Staff Corrected				
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	
Average	Expected	Dividend	Indicated	Average	Expected	Dividend	Indicated	Overstatement	
Current	Dividend	Growth	Cost of	Current	Dividend	Growth	Cost of	to DCF	
Yield	Yield	Rate	Equity	Dividend	Yield	Rate	Equity	Cost of	
(Do/Po)	(D1/Po)	(g)	(k)	(Do/Po)	(D1/Po)	(g)	(k)	Equity	
								Estimate	
DCF - Past & Future Growth	3.24%	3.42%	5.65%	9.1%	3.06%	3.24%	5.65%	8.9%	0.2%
DCF - Future Growth	3.24%	3.46%	6.87%	10.3%	3.06%	3.27%	6.87%	10.1%	0.2%
Average DCF Estimate	3.24%	3.44%	6.26%	9.7%	3.06%	3.26%	6.26%	9.5%	0.2%

Observation: As shown above, the Bourassa proposed average DCF cost of equity is overstated by 20 basis points (9.7% - 9.5% = 0.2%). Mr. Bourassa's inflated 3.24 percent spot price current dividend yield (Do/Po) flows through to the calculation of his expected dividend yield (D1/Po), and ultimately to his indicated cost of equity (k). As demonstrated in Exhibit JAC-A, properly calculated the current dividend yield (Do/Po) should be 3.06 percent, resulting in the Staff corrected reductions to both (D1/Po) and (k) shown above.

[A]: Average Current Dividend Yield (Do/Po) - Bourassa Proposed (Source: TJB Schedule D-4.8)

[B]: Expected Dividend Yield (D1/Po) - Bourassa Proposed [D1/Po = Do/Po * (1+g)]

[C]: Dividend Growth (g) Rate: Average of Past & Future Growth (Source: TJB Schedule D-4.4, column [7])

Dividend Growth (g) Rate: Average of Analysts' Forecasts of EPS Growth (Source: TJB Schedule D-4.6, column [5])

[D]: [B]+[C]

[E]: Average Current Dividend Yield (Do/Po) - Staff Corrected (Source: Exhibit JAC-A, column [J])

[F]: Expected Dividend Yield (D1/Po) - Staff Corrected [D1/Po = Do/Po * (1+g)]

[G]: Dividend Growth (g) Rate: Average of Past & Future Growth (Source: TJB Schedule D-4.4, column [7])

Dividend Growth (g) Rate: Average of Analysts' Forecasts of EPS Growth (Source: TJB Schedule D-4.6, column [5])

[H]: [F]+[G]

[I]: [D]-[H]

BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP

Chairman

GARY PIERCE

Commissioner

BRENDA BURNS

Commissioner

BOB BURNS

Commissioner

SUSAN BITTER-SMITH

Commissioner

IN THE MATTER OF THE APPLICATION OF)
VAIL WATER COMPANY FOR)
DETERMINATION OF THE FAIR VALUE OF ITS)
UTILITY PLANT AND PROPERTY AND FOR)
AN INCREASE IN ITS RATES AND CHARGES)
BASED THEREON)
_____)

DOCKET NO. W-01651B-12-0339

DIRECT

TESTIMONY

OF

MARLIN SCOTT, JR

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

FEBRUARY 25, 2013

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**EXECUTIVE SUMMARY
VAIL WATER COMPANY
DOCKET NO. W-01651B-12-0339**

Conclusions

- A. The Arizona Department of Environmental Quality reported no deficiencies and has determined that Vail Water Company's ("Company") system, PWS No. 10-041, is currently delivering water that meets the water quality standards required by 40 C.F.R. 141 and Arizona Administrative Code, Title 18, Chapter 4.
- B. The Company is located in the Arizona Department of Water Resources' ("ADWR") Tucson Active Management Area and ADWR reported the Company's system is in compliance with its requirements governing water providers and/or community water systems.
- C. According to the Arizona Corporation Commission Utilities Division Compliance Section, the Company had no delinquent compliance issues.
- D. The Company has a Commission approved curtailment tariff.
- E. The Company has a Commission approved backflow prevention tariff.

Recommendations

- 1. Staff recommends the removal of Well No. 6 totaling to \$268,743 from the plant-in-service because this Well No. 6 is considered excess capacity in this rate proceeding.
- 2. Staff recommends the removal of identified plant facilities totaling to \$281,388 from the plant-in-service because these plant items no longer exist and are not used and useful in this rate proceeding.
- 3. Staff recommends an annual water testing expense of \$13,667 be adopted for this proceeding. In the next rate case filing, the Company should submit a comparison of what its total estimated water testing expense would be as a participant in MAP compared to a non-participate in MAP with consideration of all waivers/reduced monitoring for all applicable contaminants.
- 4. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, within 90 days of the effective date of a decision in this proceeding, at least seven Best Management Practices ("BMPs") in the form of tariffs that substantially conform to the templates created by Staff for Commission review and approval. These BMP templates are available on the Commission's website. The Company may request

cost recovery of the actual costs associated with the implemented BMPs in its next general rate application.

5. Staff recommends that the Company use Staff's current recommended water depreciation rates by individual National Association of Regulatory Utility Commissioners category as shown in Table I-1.
6. Staff recommends approval of the proposed service line and meter installations charges as shown in Table J-1.
7. Staff finds the Company's proposed Central Arizona Water Project appropriate and its estimated cost of \$1,956,321 to be reasonable. Since this project is currently under construction, the project should not be included in rate base because it is not used and useful.
8. Staff recommends that the Company continue to monitor its water system closely and take action to ensure that water loss remains less than 10 percent in the future. If the water loss at any time before the next rate case is greater than 10 percent, the Company shall develop a plan to reduce water loss to less than 10 percent, or prepare a report containing a detailed analysis and explanation demonstrating why a water loss reduction to 10 percent or less is not feasible or cost effective. Such a report shall be docketed in this case.

INTRODUCTION

Q. Please state your name, place of employment and job title.

A. My name is Marlin Scott, Jr. My place of employment is the Arizona Corporation Commission ("Commission" or "ACC"), Utilities Division, 1200 West Washington Street, Phoenix, Arizona 85007. My job title is Utilities Engineer.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since November 1987.

Q. Please list your duties and responsibilities.

A. As a Utilities Engineer, specializing in water and wastewater engineering, my responsibilities include: the inspection, investigation, and evaluation of water and wastewater systems; preparing reconstruction cost new and/or original cost studies, cost of service studies and investigative reports; providing technical recommendations and suggesting corrective action for water and wastewater systems; and providing written and oral testimony on rate applications and other cases before the Commission.

Q. How many cases have you analyzed for the Utilities Division?

A. I have analyzed approximately 581 cases covering various responsibilities for the Utilities Division.

Q. Have you previously testified before this Commission?

A. Yes, I have testified in 91 proceedings before this Commission.

1 **Q. What is your educational background?**

2 A. I graduated from Northern Arizona University in 1984 with a Bachelor of Science degree
3 in Civil Engineering Technology.
4

5 **Q. Briefly describe your pertinent work experience.**

6 A. Prior to my employment with the Commission, I was Assistant Engineer for the City of
7 Winslow, Arizona, for about two years. Prior to that, I was a Civil Engineering
8 Technician with the U.S. Public Health Service in Winslow for approximately six years.
9

10 **Q. Please state your professional membership, registrations, and licenses.**

11 A. I am a member of the National Association of Regulatory Utility Commissioners' Staff
12 Subcommittee on Water.
13

14 **PURPOSE OF TESTIMONY**

15 **Q. Were you assigned to provide the Utilities Division Staff ("Staff") engineering**
16 **analysis and recommendation for the Vail Water Company ("Company") in this**
17 **proceeding?**

18 A. Yes. I reviewed the Company's application, and responses to data requests, and inspected
19 its water system on December 27, 2012. This testimony and its attachment present Staff's
20 engineering evaluation.
21

22 **ENGINEERING REPORT**

23 **Q. Please describe the attached Engineering Report, Exhibit MSJ.**

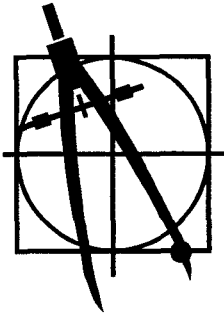
24 A. The attached Exhibit MSJ presents the details and analyses of Staff's findings for the
25 Company's water system. Exhibit MSJ contains the following major topics: (1) a
26 description of the water system, (2) water use, (3) growth, (4) plant-in-service

1 adjustments, (5) compliance with the rules of the Arizona Department of Environmental
2 Quality, Arizona Department of Water Resources, and the ACC, (6) depreciation rates, (7)
3 service line and meter installation charges, (8) Central Arizona Project issues, and (8)
4 tariff filings.

5
6 My conclusions and recommendations from the Engineering Report are contained in the
7 "Executive Summary", above.
8

9 **Q. Does this conclude your Direct Testimony?**

10 **A.** Yes, it does.



Engineering Report for Vail Water Company

Docket No. W-01651B-12-0339 (Rates)

February 25, 2013

A. LOCATION OF VAIL WATER COMPANY ("COMPANY")

The Company provides water service to the community of Vail which is located approximately 15 miles southeast of Tucson. Figure A-1 shows the location of the Company within Pima County and Figure A-2 shows the approximate 15.8 square-miles of certificated area.

B. DESCRIPTION OF WATER SYSTEM

This water system was field inspected on December 27, 2012, by Arizona Corporation Commission ("ACC" or "Commission") Staff member Marlin Scott, Jr., in the accompaniment of Manny Oros, representing the Company. The current operation of this water system covers nine different pressure zones that consist of four wells, seven storage tanks, seven booster systems and a distribution system serving approximately 3,900 service connections during the test year ending December 2011. Figure A-3 shows a system schematic of the water system. A detailed plant facility description is as follows:

Table 1. Well Data

Well No.	ADWR ID No.	Pump	Flow, GPM	Casing Size & Depth	Meter Size	Year Drilled
3	55-625703	100-Hp turbine	600	12" x 614'	8"	1974
5	55-087814	300-Hp turbine	975	14" x 924'	8"	1981
6	55-087817	200-Hp turbine	700	14" x 759'	8"	1981
8	55-087816	300-Hp turbine	1,200	14" x 845'	10"	1981
		Total:	3,475 GPM			

Notes: All wells have pellet chlorination systems and 5,000 gallon surge tanks.

Table 2. Storage Tanks

Capacity	Quantity (Each)	Location
600,000	1	I-Zone Reservoir
550,000	1	I-Zone Reservoir
500,000	2	Andrada & Sundown Booster Sites
290,000	1	Agassiz Booster Site
100,000	1	Well #3
100,000	1	(Sundown – out of service for maintenance)
Total: 2,640,000 gallons	7	

Table 3. Pumping Facilities

Location	Booster Systems	Storage Tanks (From Table 2 above)
I to J Zone Booster Site	40, 20 & 10-Hp boosters with two 5,000 gallon surge tanks.	
3380 Booster Site	30, 30 & 20-Hp boosters with two 5,000 gallon surge tanks.	
Well #3	Two 25-Hp booster pumps with 5,000 gallon pressure/surge tank	100,000 gallon storage tank
Sundown Booster Site	50, 50 & 20-Hp boosters and 5,000 gallon surge tank. 20 & 25-Hp transfer boosters to lift to Andrada Booster Site	500,000 gallon storage tank (100,000 gallon storage tank – out of service for maintenance)
Andrada Booster Site	40, 30 & 20-Hp boosters with 5,000 gallon surge tank.	500,000 gallon storage tank
Shasta Booster Site	30, 20 & 10-Hp boosters with two 5,000 gallon surge tanks.	
Agassiz Booster Site	60, 25 & 15-Hp boosters with 5,000 gallon surge tank	290,000 gallon storage tank

Table 4. Water Mains

MAINS		
Size	Material	Length (feet)
2-inch	GIP	8,456
4-inch	PVC	44,107
"	ACP	2,393
"	DIP	1,124
6-inch	PVC	126,215
"	ACP	26,426
"	DIP	7,983
8-inch	PVC	160,008
"	ACP	3,522
"	DIP	1,618
10-inch	PVC	8,067
"	ACP	8,454
"	DIP	88
12-inch	PVC	93,459
"	ACP	12,894
"	DIP	2,864
	Total:	507,678 feet or 96.15 miles

Table 5. Customer Meters

Size	Quantity
5/8 x 3/4-inch	3,708
3/4-inch	103
1- inch	24
1-1/2-inch	21
2-inch	40
3-inch compound	3
4-inch	-
6-inch	-
Total:	3,899

Table 6. Fire Hydrants

Size	Quantity
Standard	421

Table 7. Structures and Operation Equipment

Location	Structures & Treatment Equipment
Wells	#3 – 120 ft. by 120 ft. of chain link fencing (“CLF”). #5 – 100 ft. by 100 ft. of block fencing. #6 – 75 ft. by 120 ft. of CLF. #8 – 100 ft. by 100 ft. of block fencing.
Booster Sites	I to J – 100 ft. by 100 ft. block fencing. 3380 – 60 ft. by 60 ft. block fencing. Sundown – 225 ft. by 225 ft. of block/CLF. Andrada – 150 ft. by 150 ft. of CLF. Shasta – 50 ft. by 100 ft. of CLF. Agassiz – 150 ft. by 200 ft. of CLF.
All Sites	Equipped with radio-telemetry.
Office	57 ft. by 35 ft. steel building

System Modifications

Since the last rate case in 1999, the Company has added/replaced more than \$18 million of new plant primarily with Advances in Aid of Construction. These system modifications included the addition or upgrades of wells, storage tanks, booster systems and water mains.

C. WATER USE

Water Sold

Based on the information provided by the Company, water use for the test year ending December 2011 is presented in Figure C-1. The customer consumption experienced a high monthly average water use of 305 gallons per day (“GPD”) per connection in June and a low monthly average water use of 190 GPD per connection in December for an average annual use of 244 GPD per connection.

Non-Account Water

Non-account water should be 10 percent or less. The Company reported 382,210,000 gallons pumped and 344,580,000 gallons sold during the test year, resulting in a difference of 9.8 percent. This 9.8 percent is within the acceptable limit of 10 percent. The Company should closely monitor its water loss to ensure that it remains below 10 percent.

Staff recommends that the Company continue to monitor its water system closely and take action to ensure that water loss remains less than 10 percent in the future. If the water loss at any time before the next rate case is greater than 10 percent, the Company shall develop a plan to reduce water loss to less than 10 percent, or prepare a report containing a detailed analysis and explanation demonstrating why a water loss reduction to 10 percent or less is not feasible or cost effective. Such a report shall be docketed in this case.

System Analysis

The water system serves nine different pressure zones within the 15.8 square-miles of certificated areas. Given its current well capacity of 3,475 GPM and storage capacity of 2.64 million gallons, it appears the system has excessive well capacity to serve the present customer base and reasonable growth.

Using the Company's 2011 test year data, the Company reported its highest peak use month as June with 35,693,000 gallons sold to 3,895 customers. Based on this data, Staff estimates the average daily demand during this peak month to be 305 GPD per connection for evaluating storage capacity sufficiency. For well capacity evaluation, Staff used 0.27 GPM per connection ($=305 \times 1.25 \text{ factor} / 1440$) for the peak day demand. Using these factors, Staff determined that:

1. The total well capacity totaling 3,475 GPM could adequately serve approximately 12,870 connections ($=3,475 / 0.27$). This total well capacity is excessive for the test year customer base of approximately 3,900 connections.
2. The storage capacity totaling 2,640,000 gallons, minus the fire flow requirement (1,500 GPM at 2 hours = 180,000 GPD), could adequately serve up to approximately 8,065 connections ($((=2,640,000 - 180,000) / 305)$). Staff does not consider this current storage capacity excessive because of the location of the storage tanks that serve peak day demand with fire flow requirements throughout the nine different pressure zones in the 15.8 square-mile service area.
3. Figure D-1 shows a growth projection from the test year 2011 customer base of 3,900 connections to approximately 4,450 connections by December 2016.

To determine which one of the four wells should be excluded from this proceeding, Staff's evaluation consisted of the following:

- a. Well No. 3 is located south of one of the railroad tracks where the only interconnection is located between the old North and South Systems. If this railroad crossing is ever disrupted, Well No. 3 could continue to serve customers in the southern area of the system. For this reason, Staff believes Well No. 3 should remain in rate base.
- b. Wells No. 5, No. 6 and No. 8 are all located in the northern area of the water system. Since Well No. 6 is the lowest producing well, Staff selected this well for removal from this rate case. (See Section E for cost of Well No. 6.)

D. GROWTH

Figure D-1 depicts the customer growth using linear regression analysis by using the number of customers obtained from annual reports that were submitted to the Commission. At the end of December 2011, the Company had approximately 3,900 customers and is projected to have approximately 4,450 customers by 2016.

E. PLANT-IN-SERVICE ADJUSTMENTS

Excess Well Capacity

Based on the above system analysis, Staff posits that the Company's water system has excess well capacity and recommends that Well No. 6 not be included in this rate proceeding. In the prior rate case under Docket Nos. W-01651B-99-0351 and W-01651B-99-0406, the cost of Well No. 6 was reported at \$91,686. In response to Staff's Data Request MSJ 7.1, the Company reported plant improvements/additions to Well No. 6 totaling \$177,057 from the last rate case to the present rate case as follows:

Table E-1. Excess Well Capacity

Acct. No.	Plant Items	Year Installed	Original Cost
307	Well #6		
	– cost in prior rate case	1998	\$ 91,686
	– plant additions reported in present rate case	2003	\$ 177,057
	Total:		\$ 268,743

As a result, Staff recommends the removal of Well No. 6 totaling to \$268,743 from plant-in-service because Well No. 6 is considered excess capacity in this rate proceeding.

Not Used and Useful Plant

During its field inspection, Staff used the prior rate case Engineering Report and noted a number of plant facilities that were no longer in existence due to system modifications. In

response to Staff's Data Request MSJ 4.1 (as amended on February 18, 2013), the Company provided the following list of plant items that need to be retired:

Table E-2. Plant Not Used and Useful

Acct. No.	Plant Items	Year Installed	Year Retired	Original Cost	Total per Acct.
304	Well #2 - Fencing	1961	2005	\$ 656	
	Golos - Fencing	1980	2004	\$ 1,602	
	Patterson - Fencing	1978	2000	\$ 1,322	
	Old Andrada - Fencing	1980	2004	\$ 1,602	
					\$ 5,182
311	Well #6 - 75 HP well pump	1981	2003	\$ 11,893	
	Well #6 - Two 30 HP transfer/booster pumps	1981	2003	\$ 2,903	
	VV Ranch - Two 5 HP booster pumps	1989	2004	\$ 2,479	
	Well 3 - 75 HP well pump	1980	2006	\$ 9,532	
	Well #2 - Two 25 HP, one 20 HP & one 15 HP booster/transfer pumps	1961	2005	\$ 1,531	
	Well #2 - 250 gallon surge tank	1961	2005	\$ 426	
	Golos - 5 HP booster pump	1980	2004	\$ 834	
	Patterson - Two 2 HP booster pumps	1978	2000	\$ 1,141	
	Patterson - Three 40 gallon bladder tanks	1978	2000	\$ 830	
	Old Andrada - Two 20 HP booster pumps	1980	2004	\$ 2,344	
					\$ 33,913
330	Well #6 - 10,000 gallon storage tank	1981	2003	\$ 10,889	
	Well #6 - 3,000 gallon pressure tank	1981	2003	\$ 10,072	
	VV Ranch - 15,000 gallon storage tank	1989	2002	\$ 16,333	
	VV Ranch - 2,000 gallon pressure tank	1989	2004	\$ 6,806	
	Well #3 - 1,000 gallon surge tank	1980	2006	\$ 2,976	
	Well #2 - 100,000 gallon storage tank	1961	2005	\$ 26,222	
	Well #2 - 5,000 gallon pressure tank	1961	2005	\$ 3,278	
	Golos - 50,000 gallon storage tank	1980	2004	\$ 45,778	
	Golos - 3,000 gallon pressure tank	1980	2004	\$ 8,469	
	Old Andrada - 100,000 gallon storage tank	1980	2004	\$ 91,556	
	Old Andrada - 5,000 gallon pressure tank	1980	2002	\$ 11,445	
	Old Andrada - 3,000 gallon pressure tank	1980	2004	\$ 8,469	
					\$242,293
	Totals:			\$ 281,388	\$281,388

Staff recommends removal from plant-in-service the above identified plant facilities totaling \$281,388 because these plant items no longer exist and are not used and useful in this rate proceeding.

F. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (“ADEQ”) COMPLIANCECompliance

According to an ADEQ Compliance Status Report dated September 27, 2012, ADEQ reported no deficiencies and has determined that the Company’s system, PWS No. 10-041, is currently delivering water that meets the water quality standards required by 40 C.F.R. 141 and Arizona Administrative Code, Title 18, Chapter 4.

Water Testing Expense

According to the above ADEQ Compliance Status Report, the Company served a population of 11,814 people. According to ADEQ regulations, all public water systems serving less than 10,000 people are required to participate in the ADEQ Monitoring Assistance Program (“MAP”). Although the Company serves more than 10,000 people, the Company has elected to participate in MAP. MAP samples for regulated inorganic/volatile organic/synthetic organic chemicals, asbestos, radionuclides, nitrate, nitrite, sulfate and nickel. MAP does not monitor for bacteria, lead & copper or disinfection byproducts.

The Company reported its water testing expense at \$3,906 during the test year. Staff’s Data Request MSJ 4-7 asked the Company to conduct a water testing exercise comparing expenses if the Company participates or does not participate in MAP. Staff found the Company’s data request response incomplete and, sent out another data request, MSJ 6.1, as a follow-up to MSJ 4-7. Based on the Company’s response to MSJ 6-1, Staff has estimated the Company’s water testing expense at \$13,667 with participation in MAP as shown in Table E-1. Staff recommends that \$13,667 be adopted for this proceeding. In the next rate case filing, the Company should submit a comparison of what its total estimated water testing expense would be as a participant in MAP compared to a non-participant in MAP with consideration of all waivers/reduced monitoring for all applicable contaminants.

G. ARIZONA DEPARTMENT OF WATER RESOURCES (“ADWR”) COMPLIANCECompliance

The Company’s water system is located in the Tucson Active Management Area (“AMA”). On November 16, 2012, ADWR reported that the Company’s system is in compliance with its requirements governing water providers and/or community water systems.

Best Management Practice Tariffs

According to the ADWR website, the Company is within the Tucson AMA but does not participate in ADWR’s Modified Non-Per Capita Conservation Program (“NPCCP”).

Staff recommends that the Company file with Docket Control, as a compliance item in this docket, within 90 days of the effective date of a decision in this proceeding, at least seven

BMPs in the form of tariffs that substantially conform to the templates created by Staff for Commission review and approval. These BMP templates are available on the Commission's website. The Company may request cost recovery of the actual costs associated with the implemented BMPs in its next general rate application.

H. ARIZONA CORPORATION COMMISSION ("ACC") COMPLIANCE

On April 5, 2012, the Utilities Division Compliance Section reported that the Company had no delinquent ACC compliance issues.

I. DEPRECIATION RATES

In the prior rate case, the Company was granted use of Staff's older depreciation rates by individual National Association of Regulatory Utility Commissioners category. In this case, the Company is adopting Staff's current typical and customary water depreciation rates. Staff recommends that the Company use Staff's current depreciation rates listed in Table I-1.

J. SERVICE LINE AND METER INSTALLATION CHARGES

The Company has requested changes to its service line and meter installation charges. Since the Company may at times install meters on existing service lines, it would be appropriate for those customers to only be charged for the meter installation. In addition, the Company has been installing telemetry units for remote meter reading and is requesting authorization to charge an additional \$150.00 for each meter installation over and above Staff's recommended typical installation charges. Staff recommends approval of the proposed charges shown in Table J-1 and these charges would apply to properties not already being served by the Company.

K. CURTAILMENT TARIFF

The Company has an approved curtailment tariff on file with the Commission.

L. BACKFLOW PREVENTION TARIFF

The Company has an approved backflow prevention tariff on file with the Commission.

M. OFF-SITE FACILITIES HOOK-UP FEE ("HUF") TARIFF

Existing Off-Site HUF Tariff

The Company has an Off-Site Facilities Hook-Up Fee Tariff, starting at \$420.00, that was approved by Decision No. 60585, dated January 14, 1998, which was initially applicable only to the south system. This tariff was to be applicable to the north system when the north and south systems were physically connected. The interconnection of the two systems was completed on March 14, 2002. Fees collected under this tariff are used to pay for backbone plant such as wells and storage tanks.

N. CENTRAL ARIZONA PROJECT (“CAP”) ISSUESCAP Hook-Up Fee Tariff

The Company has a CAP Hook-Up Fee Tariff, starting at \$1,000, that was approved by Decision No. 62450, dated April 14, 2000, which was initially applicable only to the north system and would be applicable to the entire system after the interconnection of the north and south systems has been completed. The interconnection of the two systems was completed on March 14, 2002.

CAP Recovery Fee (Service Charge)

The Company has a CAP Recovery Fee of \$0.32 per 1,000 gallons of usage that was also approved by Decision No. 62450. This Recovery Fee was initially applicable only to the north system and was to apply to the entire system once the interconnection of the north and south systems was completed which occurred on March 14, 2002. The Company is requesting to discontinue this Recovery Fee and is seeking approval of a CAP Surcharge Mechanism to recover the CAP-related costs for the delivery of CAP water to its service territory.

Proposed CAP Project

The Company’s proposed CAP Project includes the delivering of finished CAP water into the Company’s service area by connecting to the City of Tucson’s delivery system and constructing a booster station and approximately 1.8 miles of transmission main. This CAP transmission main will connect to the Company’s existing system near Well No. 5 and the CAP water will be further transported through approximately three miles of existing main to the I-Zone Reservoir site. The booster station will be constructed to deliver CAP water beginning at 800 GPM and phased-in up to 1,500 GPM. The proposed CAP Water Project is shown in Table N-1 below and Staff finds this project appropriate and its cost reasonable. Since this project is currently under construction, the project should not be included in rate base because it is not used and useful.

Table N-1. CAP Project

Phase	CAP Project – Plant Items	Unit	Quantity	Unit Price	Amount
	Engineering (actual cost)				\$88,415
	Easements (actual cost)				\$23,109
	Legal (actual cost)				\$6,321
	Field Survey (actual cost)				\$3,008
	Recording Fees (actual cost)				\$84
	Review Fees ADEQ (actual cost)				\$1,000
	Title Insurance (actual cost)				\$831
I	16-inch DIP	LF	1,693	\$90.50	\$153,217
	16-inch valve	EA	3	\$5,945	\$17,835
	12-inch valve	EA	4	\$2,315	\$9,260
	Flushing outlet	EA	1	\$2,175	\$2,175
	Corrosion Test Station	EA	3	\$1,725	\$5,175
	Connect to existing system	LS	1	\$3,000	\$3,000
	Testing	LS	1	\$2,500	\$2,500
	Subtotal:				\$193,162
	(Change-out 12" main vs. 16" main)				(\$91,925)
	Subtotal:				\$101,236
	Sales tax at 7.10%				\$4,672
	Subtotal – Phase I:				\$105,908
II	16-inch restrained DIP	LF	4,128	\$135	\$557,280
	16-inch DIP	LF	3,472	\$110	\$381,920
	16-inch valve	EA	7	\$5,800	\$40,600
	12-inch valve	EA	3	\$4,000	\$12,000
	2-inch air release valve	EA	1	\$1,900	\$1,900
	Cathodic protection	LS	1	\$18,000	\$18,000
	Subtotal - Mains:				\$1,011,700
	Booster Station/Electrical				\$525,000
	Contingency at 10% (on remaining construction only)				\$153,670
	Tax at 7.1% (on booster station only)				\$37,275
	Subtotal - Phase II:				\$1,727,645
	TOTAL:				\$1,956,321
	Phase I is actual cost.				
	Phase II is estimated cost as of 2-1-13.				

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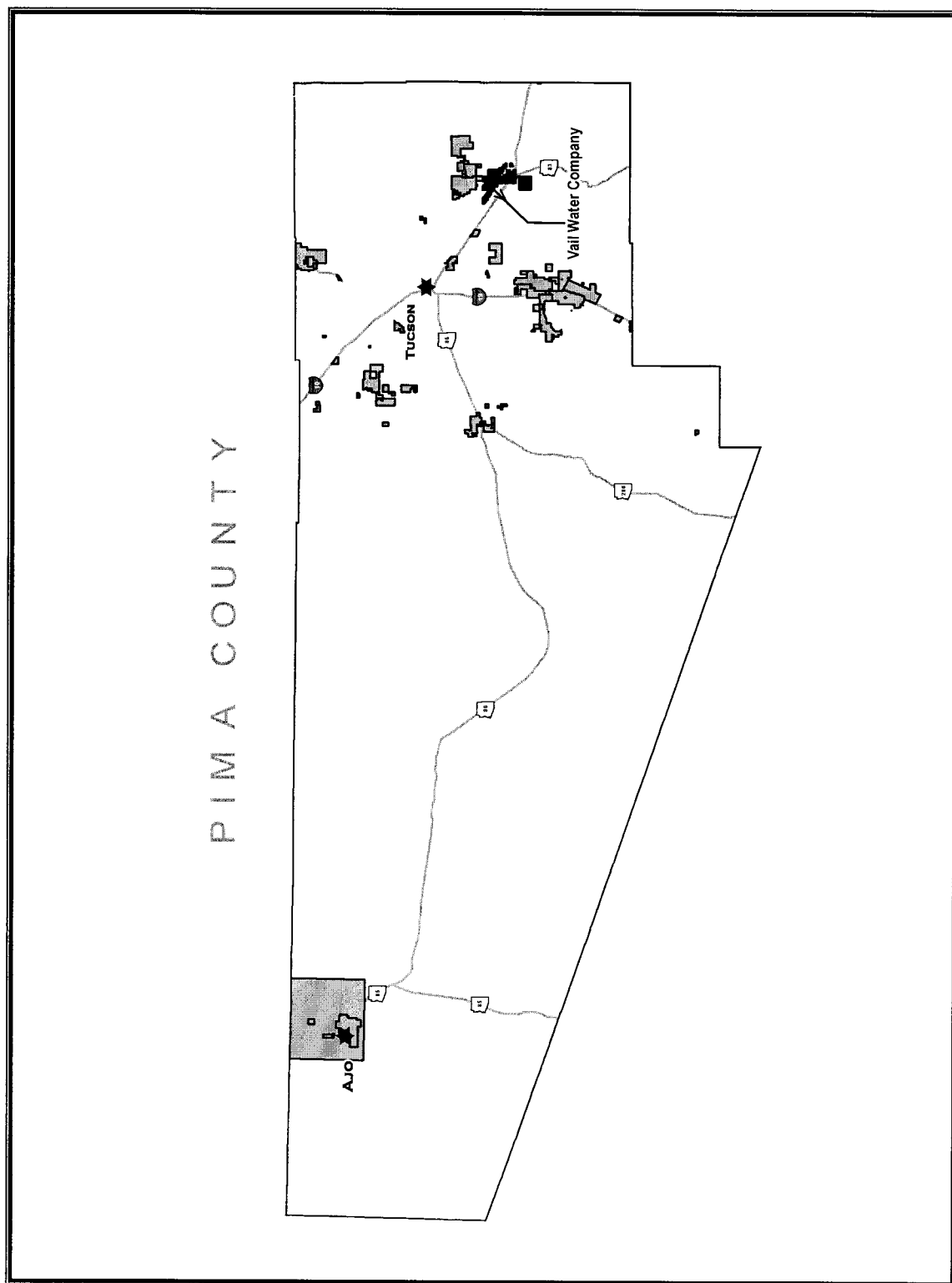


Figure A-1. Pima County Map

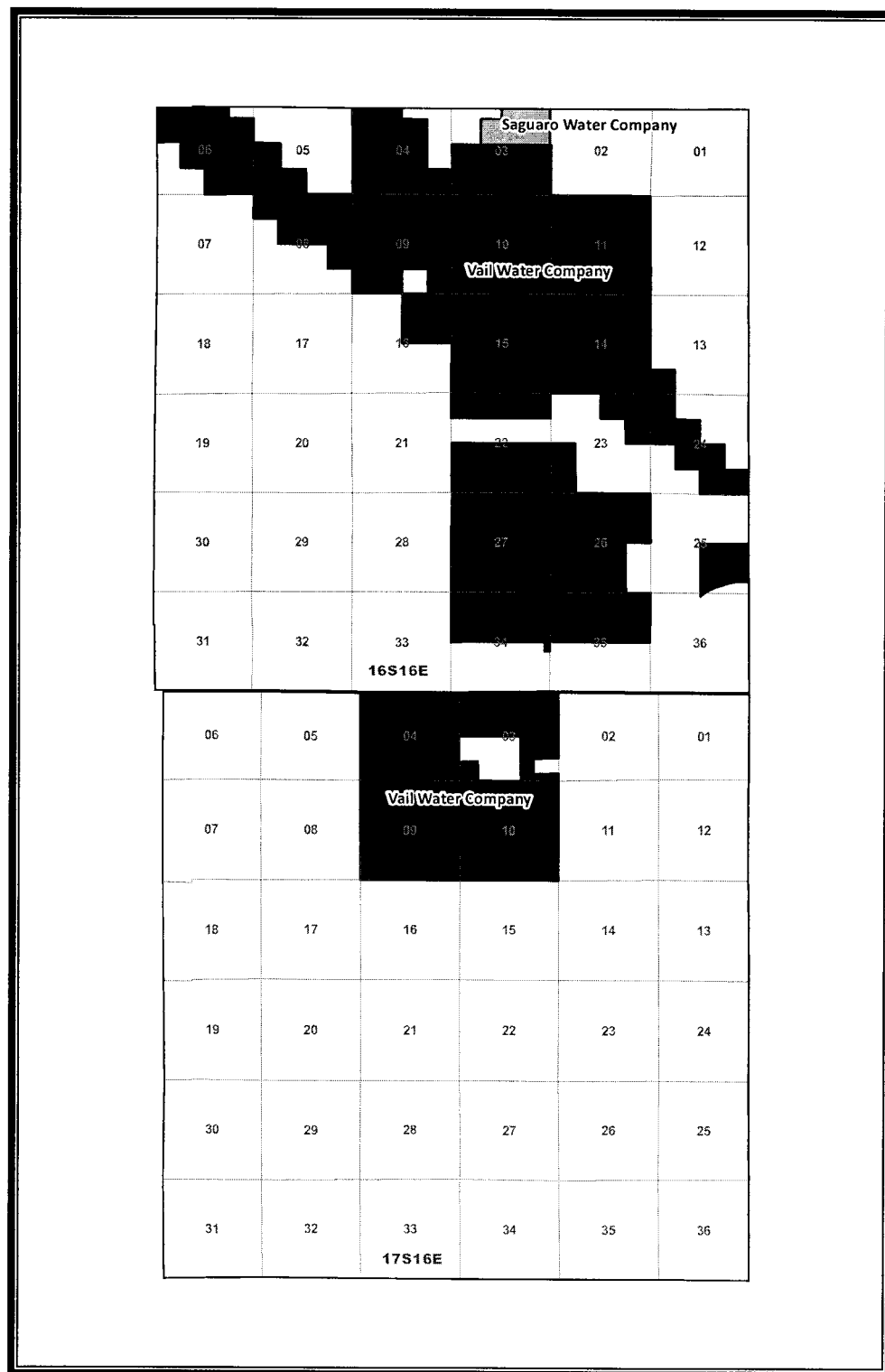


Figure A-2. Certificated Area

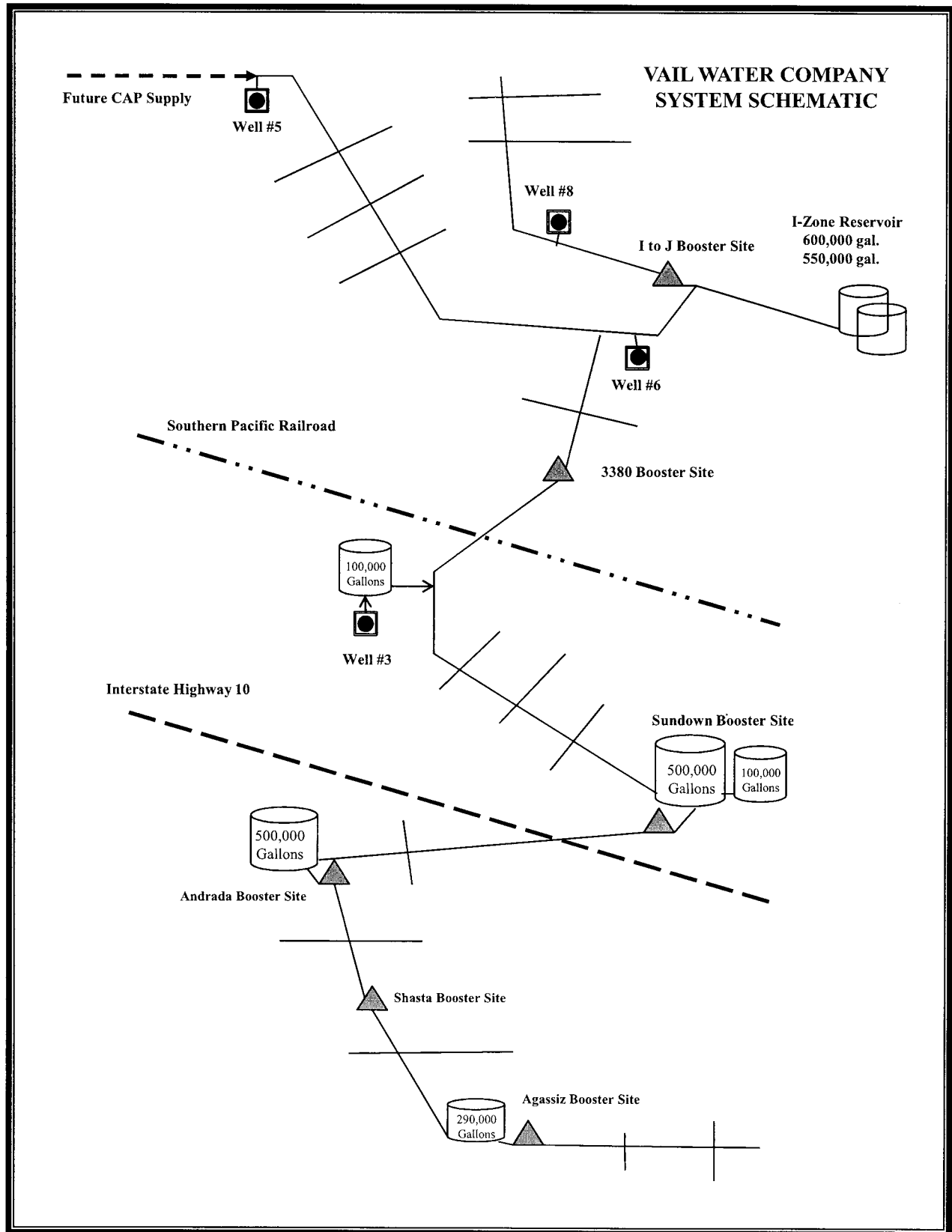


Figure A-3. Water System Schematic

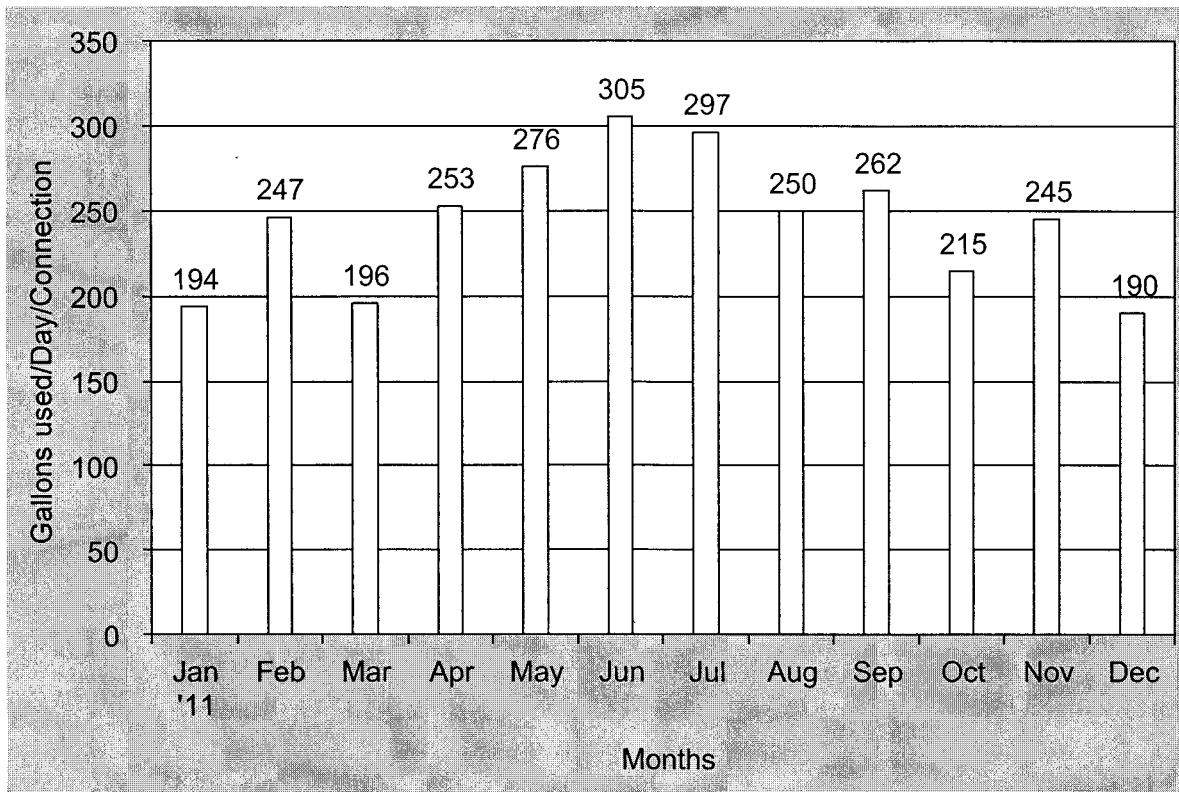


Figure C-1. Water System Use

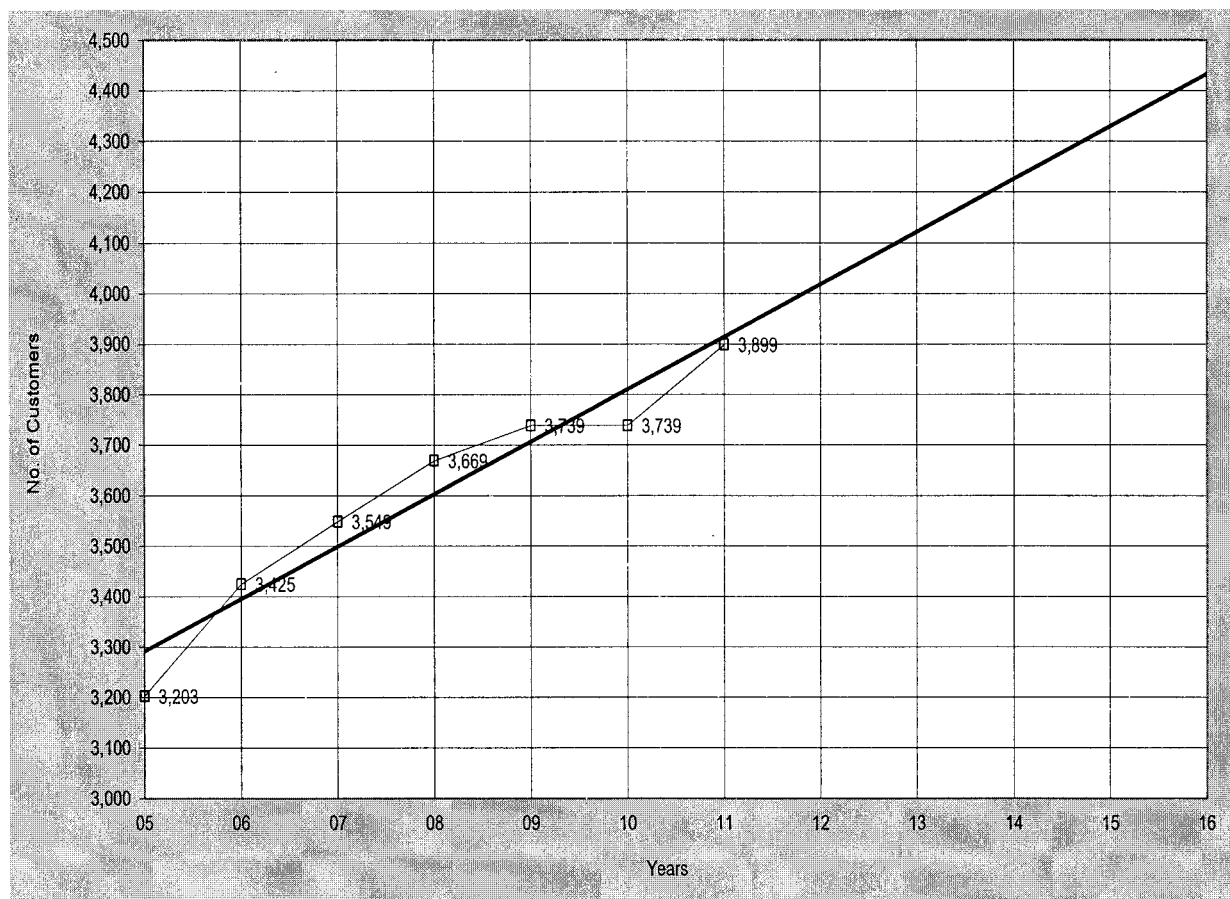


Figure D-1. Water System Growth

Table E-1. Water Testing Expense

Monitoring	Cost per test	No. of test	Annual Cost
Total coliform – 10 samples monthly	\$20	120	\$2,400
MAP – IOCs, Radiochemical, Nitrate, Nitrite, Asbestos, SOC, & VOCs	MAP	MAP	\$10,147
Lead & Copper – 20 samples per 3 years	\$33	20	\$220
D/DBP – Trihalomethanes – annually	\$110	4	\$440
– Haloacetic Acids – annually	\$115	4	\$460
Total			\$13,667

Note: ADEQ's MAP invoice for the 2012 Calendar Year was \$10,147.07.

Table I-1. Water Depreciation Rates

NARUC Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	---	---

NOTE: Acct. 348 – Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.

Table J-1. Service Line and Meter Installation Charges

Meter Size	Current Total Charges	Proposed Service Line Charges	(1) Proposed Meter Charges	Proposed Total Charges
5/8 x 3/4-inch	\$400	\$445	\$305	\$750
3/4-inch	\$440	\$445	\$405	\$850
1-inch	\$500	\$495	\$465	\$960
1-1/2-inch	\$675	\$550	\$675	\$1,225
2-inch Turbine	-	\$830	\$1,195	\$2,025
2-inch Compound	\$1,660	\$830	\$2,040	\$2,870
3-inch Turbine	-	\$1,045	\$1,820	\$2,865
3-inch Compound	\$2,150	\$1,165	\$2,604	\$3,769
4-inch Turbine	-	\$1,490	\$2,820	\$4,310
4-inch Compound	\$3,135	\$1,670	\$3,795	\$5,465
6-inch Turbine	-	\$2,210	\$5,175	\$7,385
6-inch Compound	\$6,190	\$2,330	\$7,070	\$9,400

Note: (1) Proposed meter charges based on Staff's estimated typical installation charges plus \$150 additional charge for meter telemetry unit for remote meter reading.